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FORE THE UNITED STATES ANTHRACITE
COAL COMMISSION

EMPLOYEES EXHIBIT NUMBER _____

THE SANCTION FOR
A LIVING WAGE

A Compilation of Data From Official and
Authoritative Sources

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UC-NRLF

Presented by
W. JETT LAUCK

On behalf of
John L. Lewis, President
Philip Murray, Vice-President
F. P. Hanaway, International Representative
Percy F. Lowell, Statistician

John Dempsey
Thomas Kennedy
Chris. J. Golden } Committee Representing
Districts 1, 7 and 9

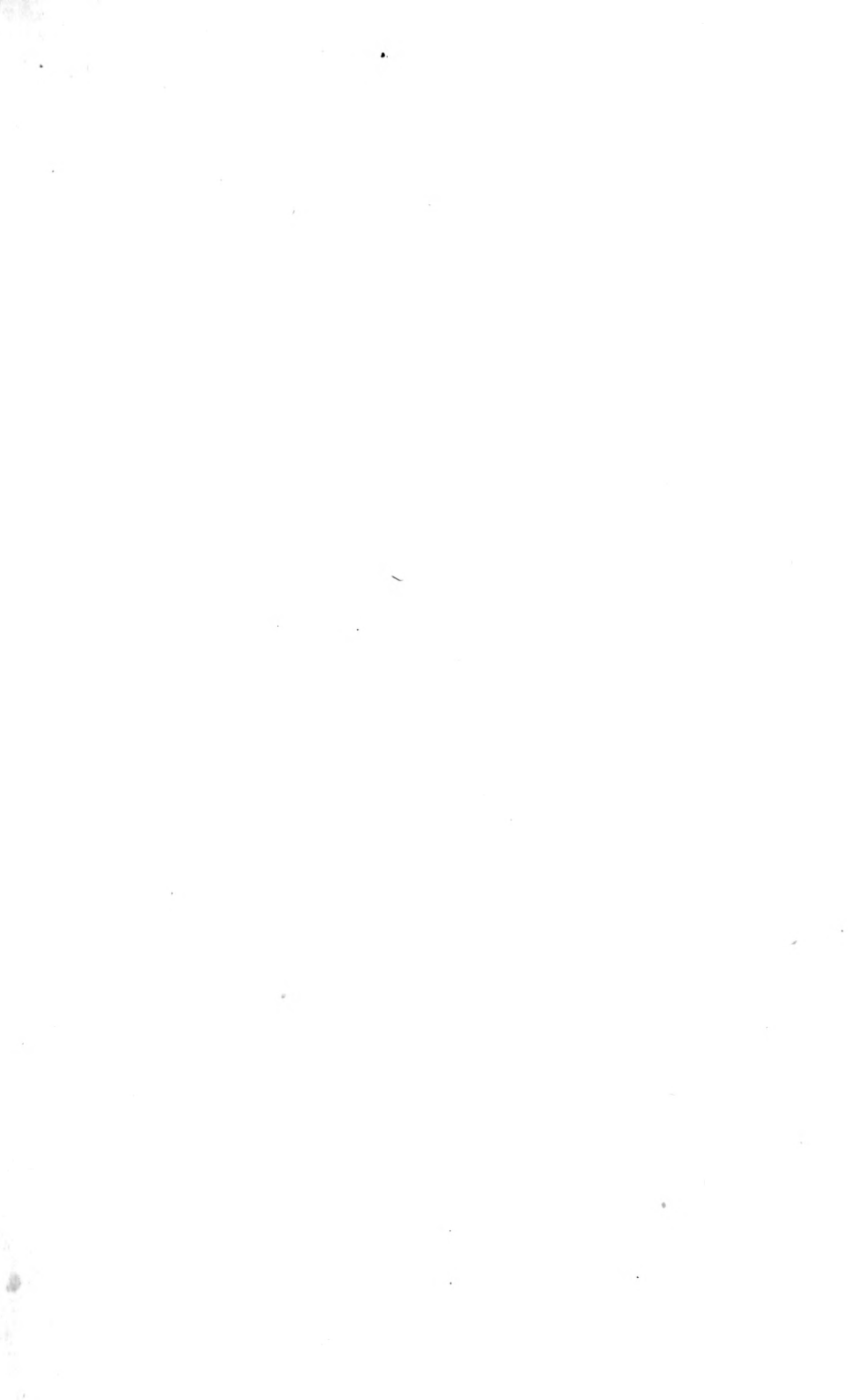
Of the

United Mine Workers of America

WASHINGTON
1920

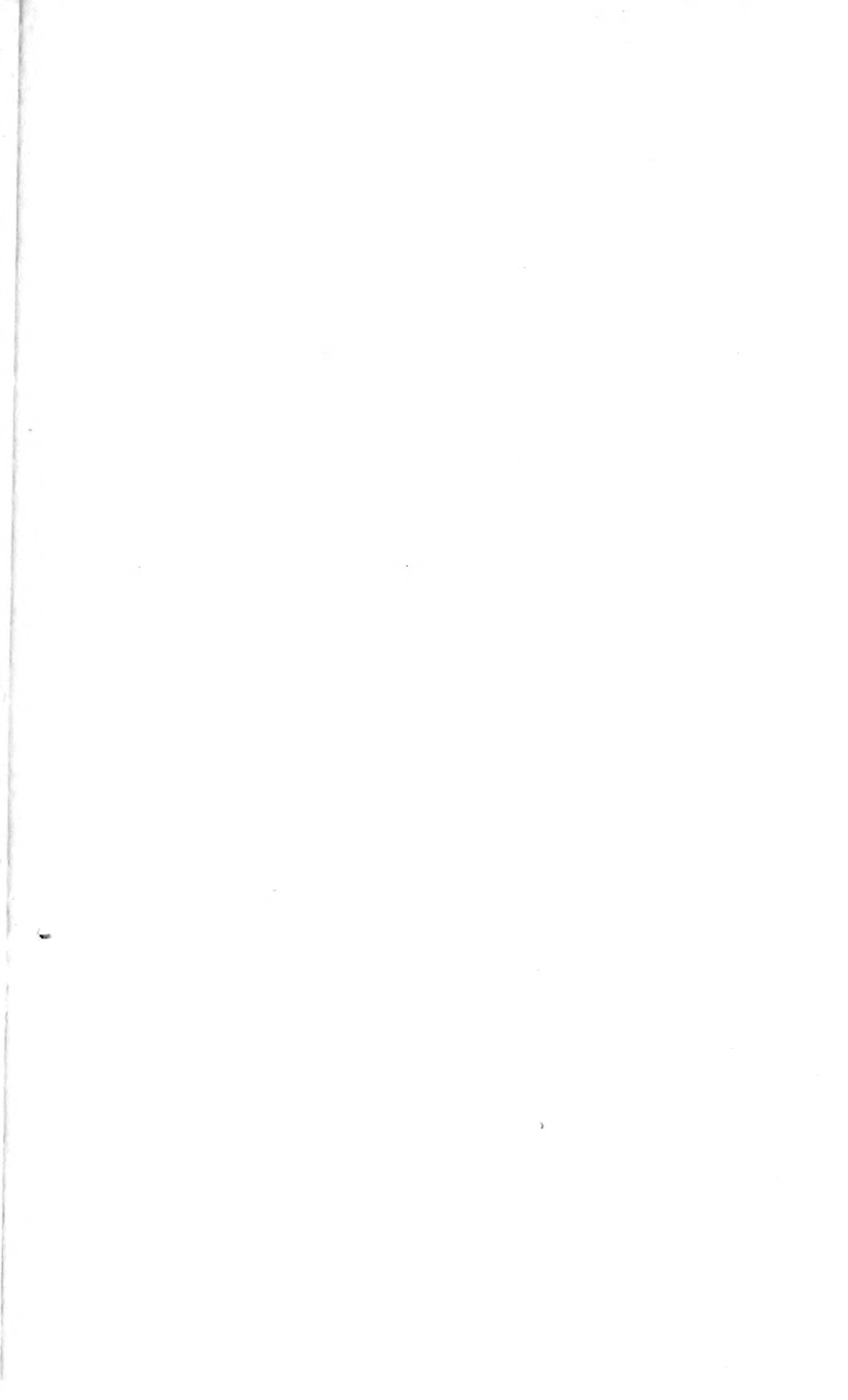












**BEFORE THE UNITED STATES ANTHRACITE
COAL COMMISSION**

EMPLOYES EXHIBIT NUMBER 121

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W. JETT LAUCK

On behalf of

United Mine Workers of America

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PART I.

**THE VERDICT AGAINST THE OLD THEORY OF WAGES;
AGAINST THE DETERMINATION OF RATES OF PAY
THROUGH THE ALLEGED UNHAMPERED FORCES OF
SUPPLY AND DEMAND.**

1. *Standard of Living and Physique.* FRANK A. VANDERLIP. *What Happened to Europe.* New York, Macmillan, 1920. (pp. 34-36.)

"On the whole, the forces tending to keep down wages proved, for 20 years prior to the war, almost as strong as the forces tending to raise them, and the result has been during that period that with a somewhat increasing cost of living, the standard of living of the laborer has certainly not much advanced, and, I believe, on the whole, has retrograded. Whatever the statistics of index numbers may show, at least two great broad facts are evident. One of these is the deterioration in physique.

* * *

"A visit to the mill towns of the cotton spinning districts, for example, shows almost another race of people compared to the well-fed Englishmen we know in London—a race undersized, underfed, underdeveloped and undereducated. Lloyd George's famous utterance that you could not build an A1 nation out of a C3 population has sunk deep into the English mind. The statistics of physique which the military annals produce show that one-third of the male population of fighting age was unfit for military effort.

"The other great outstanding fact indicating in British industry a wage scale insufficient for what is regarded as a minimum standard of living, is found in the great national housing problem. The brutal truth is that England's labor has been so underpaid during the last generation that it has been unable to keep a roof over its head, and today there is urgent need for homes for a million workingmen's families.

* * *

"It is admitted on every hand that the deterioration and crowding in houses has gone to a shocking point—has gone so far that nothing short of national aid can rescue English labor from an intolerable position.

* * *

"In order successfully to compete in neutral markets, British industry has made a red-ink overdraft on the future, an overdraft on the physique of her citizens, an overdraft that has consumed her house facilities; that overdraft must now be made good at the expense of the nation."

2. *United States Office of the Provost Marshal General. Second Report to the Secretary of War on the Operations of the Selective Service System to December 20, 1918.* Washington, 1919.

"6. *Group C; Qualified for Special Limited Service.*—Out of 3,208,446 registrants examined, 339,377 or 10.58 per cent were

men for the reserve was made by passing upon individual cases much as in our system. The several grounds for such deferment, or 'posting to the reserve,' are summarized in Appendix K. The registration included all ages between 15 and 60; but the successive conscription acts extended, from time to time, the ages for immediate liability to military service, beginning at 18 to 40, thence going to 45, and upward, with varying qualifications.

"The registration which took place August-September, 1915, covered some 5,000,000 men of ages 18 to 40, but did not include some 3,000,000 (estimated) who had already enlisted. The total men of military ages, 18 to 45, numbered something more than 9,500,000, but the only available figures showing the deferments ('posting to the reserve') cover ages 18 to 43. Table 62a shows the result:

TABLE 62a—DEFERMENTS IN BRITISH SYSTEM.

	British deferments, ages 18 to 43.	Number.	Per cent.	Per cent.
1	Total males, ages 18-43, Aug., 1914-May, 1918	9,452,000	100.00	.....
2	Posted to the Army Reserve, Class B, since Aug. 15, 1915.....	3,586,000	37.94	100.00
3	(1) Men, mainly of low categories, exempted on personal and domestic grounds	250,000	.....	6.97
4	(2) Men exempted on grounds of industrial necessity.....	2,028,000	.....	56.55
5	(a) Fit men engaged on work of national importance.....	670,000	.....	.....
6	(b) Fit men engaged on war work for Army or Navy.....	840,000	.....	.....
7	(c) Men engaged on war work for allies' armies or navies.....	119,000	.....	.....
8	(d) Fit men engaged in agriculture..	279,000	.....	.....
9	(e) Men engaged in mercantile marine	120,000	.....	.....
10	(3) Men of lowest categories distributed among (b), (c) and (d).....	1,003,000	.....	27.97
11	(4) Specific deferment not given.....	305,000	.....	8.51

"(1) It will be seen that the ratio of total deferments was virtually a little more than one-half of the American ratio. This is partly accounted for (just one-half) by our large alienage exemption. The remainder may perhaps be accounted for by our liberal method of grading the deferments into four classes.

"(2) It will further be noted that among the deferments the ratio shown for dependency is relatively small (even including items (1) and (3) together, which seems proper). This indicates that the primary consideration was given, in the British system, to the determination of deferments on the grounds of war work and industrial necessity, while in the American system primary consideration was given to the dependency claims. The protection to war work

and industrial necessity also resulted as an incident of the American system; but it was not attempted to be directly controlled to the same extent as in the British system; the adjustment being left in part to the general industrial trends and to the measures adopted by the War Industries Board and other agencies." (pp. 171, 172.)

3. *The Working of the Trade Boards Act in Great Britain and Ireland.* CONSTANCE SMITH. *The Journal of Political Economy*, July, 1914.

"In the 20 years that elapsed between 1889 and 1909 the courses of the world combined to make plain the truth that economically we are all members one of another. Expert examination into the sources of national prosperity and national decline showed that even one unsound spot in the national organism is and must be the cause of weakness and corruption in the whole. Willingly or unwillingly, the wealth acquired by the underpayment of labor must needs pay toll toward the maintenance of those of whose incapacity, sickness, destitution, or crime such underpayment is the fruitful source. Thinking people began to realize that, however splendid the industrial superstructure, if its foundations be set in a mass of bad work and half-starved workers, if the building be reared above an abyss of inefficiency and misery into which those belonging to the higher working grades are in continual danger of slipping, carrying with them the children who are necessarily the hope of the next generation, the whole building must be in peril. It was perceived that in the case of a large class of the community a lowering of both physique and morale was going on which must presently amount to a national danger." (pp. 607-608.)

4. *The Underlying Principles of Modern Legislation.* W. JETHRO BROWN, *Professor of Law, University of Adelaide, South Australia.* 3d Edition, London, Murray, 1914.

"The insufficient wage is first among the reasons why so large a proportion of the population is living below the poverty line.

5. *The Living Wage.* PHILIP SNOWDEN, M.P. *Hodder & Stoughton.* London, 1913.

"Low wages are largely responsible for the material waste, for the physical loss and the industrial inefficiency described in this chapter; but the most serious of all the loss which is inflicted upon the community by low wages is that it destroys the intellects of the very poor and numbs their moral aspirations. Poverty is an opiate which produces a feeling of contentment with or resignation to conditions which ought to excite a righteous discontent. The heaviest price which is paid by the community for low wages is the loss of a rational ambition for better conditions." (P. 55.)

6. *Minimum Wage Boards.* FLORENCE KELLEY, *General Secretary, National Consumers' League. Proceedings of the National Conference of Charities and Corrections. Cleveland, 1912.*

"It may be asked whether there is not danger, in case this constitution should be adopted and so interpreted that minimum wage boards can be created under its terms, of driving industry out of Ohio into Pennsylvania, West Virginia and Indiana, where wages may still be forced down below the minimum level of vital efficiency without interference. That threat has been made in the Australian colonies and in the English Parliament. It is made by the textile trades in Massachusetts, and will continue to be made in our States. But no industry goes. Cut-throat competitors may go, but experience has shown that the increased efficiency that accompanies the creation of wages boards deprives competition of its power for harm. In Victoria more than half of the 91 trade boards now in existence have been asked for by employers glad to be rid of cut-throat and incompetent competitors.

When, through the acquisition by the weaker working people of proper elements of bargaining strength, a living wage is made a first charge upon industry, incompetent employers must either call in the efficiency doctors and follow their prescriptions, or themselves seek work in some occupation other than fattening upon defenseless workers and keeping them in chronic destitution." (P. 9.)

7. *Low Wages and Public Health.* *United States Public Health Service. Bulletin No. 76. March, 1916.*

"The growing realization of the fact that the health of the wage-working population depends in large measure upon economic conditions is leading to the conviction that there is need for more comprehensive measures for the relief and prevention of disease. The presence of a wage-working population in almost every community renders this problem a national as well as a local one. As the industrial population of the United States increases, the need for an adequate solution of the problem becomes more pressing. (P. 5.)

"The problem of the wage-workers' health is made more complex on account of economic factors. The 'human scrap heap of industry' is not an imagined thing, but represents a very real and constant loss of industrial efficiency and waste of health and life that ought to be prevented. (P. 7.)

"Among the more important economic factors which affect the health of the wage-working population may be mentioned the following:

"The economic disadvantages at which a large proportion of wage-workers and their families are placed as the result of low wages and insufficient annual income. (P. 8.)

"The findings of a committee of the American Iron and Steel Institute which visited a number of industrial towns are of especial significance in this connection.

"These conditions are similar to those indicated by the mortality

statistics of the Federal census for many localities where large numbers of low-paid wage-workers live. While the death rate for the entire registration area in 1913 was found to be 14.1 per 1,000, in certain communities where investigation has shown the prevalence of low wages and unfavorable sanitary conditions the rate was much higher. The higher rate in these communities was not attributable to occupational hazards, since it was above that of other communities where similar occupations prevailed. It is only necessary to note, for example, that the death rate in 1913 for Fall River, Mass., was 17.2; for Johnstown, Pa., 16.9; for McKee's Rocks, Pa., 16.9; for Shenandoah, Pa., 18.9, and for Braddock, Pa., 23.2. As it is generally recognized that mortality returns in localities of this type are more or less incomplete, it is safe to say that the rates cited are lower than more thorough and complete vital statistics would show." (P. 26.)

8. *Industrial Workers and Infant Mortality.*

- (a) *Children's Bureau, United States Department of Labor, 1915. Infant Mortality. Results of a Field Study in Johnstown, Pa. Based on Births in One Calendar Year.* EMMA DUKE.

"The method of the inquiry is in one respect unique, so far as we are aware. Instead of taking as its point of departure the death records of children who have not survived their first year, the birth records are first secured for all children born within a certain calendar year, and each child is then traced through the first 12 months of life, or as much of that period as he survives, in order to obtain information as to the conditions which surround all the children of the town born during the given year. (P. 7.)

"The Johnstown report shows a coincidence of underpaid fathers, overworked and ignorant mothers and those hazards to the life of the offspring which individual parents cannot avoid or control because they must be remedied by community action. All this points toward the imperative need of ascertaining a standard of life for the American family, a standard which must rest upon such betterment of conditions of work and pay as will permit parents to safeguard infants within the household. Toward the slow working out of the essentials of such a standard it is hoped that the bureau's continued studies into infant mortality may contribute." (Letter of Transmittal—Julia C. Lathrop, Chief. Pp. 8-9.)

"A grouping of babies according to the income of the father shows the greatest incidence of infant deaths where wages are lowest, and the smallest incidence where they are highest, indicating clearly the relation between low wages and ill-health and infant deaths.

"For all live babies born in wedlock the infant mortality rate is 130.7. It rises to 255.7 when the father earns less than \$521 a year, or less than \$10 a week, and falls to 84 when he earns \$1,200 or more, or if his earnings are 'ample.' The variation in the infant mortality rate from one earnings group to another is not perfectly regular and consistent, but if any two or more consecutive groups are combined,

an invariable lowering of the infant mortality rate from one such combined group to that next higher results."

(b) *Children's Bureau, United States Department of Labor, 1915. Infant Mortality, Montclair, N. J. A Study of Infant Mortality in a Suburban Community.*

"In view of the decision to include in this inquiry, all babies born in Montclair in 1912, and to study the conditions surrounding them during their first year of life, the birth certificates were copied from the records of the health officer for all babies born in that year, and a 12 months' lapse of time from the date of birth was allowed in each case before the baby was visited, i. e., a baby born in November, 1912, was not visited until after November, 1913, in order that the first 12 months of life might have been completed. (Pp. 7-8.)

"The infant mortality rate in this study is obtained by comparing the number of babies born alive in Montclair in 1912 and included in this study with the number of these same babies who died before they were a year old. The number of such deaths per 1,000 live births gives an exact infant mortality rate for the limited group considered. (P. 8.)

"The results of the study in Montclair show that of the 402 babies included in the investigation, 34 died before they were 1 year old, giving an infant mortality rate for this selected group of 1912 babies of 84.6 per 1,000 live births. (P. 11.)

"It is obvious that even the care given the baby by its mother often must be offset by the evils resulting from an income insufficient for the family's needs, since a low income frequently must involve undesirable housing accommodations, an overworked mother, insufficient nourishment for mother and child and lack of competent medical advice. Sir Arthur Newsholme has found in his English studies that infant mortality is higher among the poor than among the well-to-do, although natural feeding of infants is probably more general among the former. Table VII shows that in Montclair the infant mortality rate was approximately two and one-half times as high among families where the income was less than \$12 a week as among families where the income was \$23 a week or more."

TABLE VII—BIRTHS, DEATHS UNDER 1 YEAR AND INFANT MORTALITY RATE ACCORDING TO TOTAL FAMILY INCOME.

Total family income.	Births.	Deaths under 1 year.	Infant mortality rate.
Total.....	395	30	75.9
Under \$625.....	95	11	115.8
\$625 to \$1,199.....	111	9	81.1
\$1,200 and over.....	128	6	46.9
Not reported.....	61	4	65.6

9. *The Relation of Inadequate Earnings to Crime. Report of the City Council Committee on Crime. Chicago, Summary of Findings, Sec. 14, p. 12.*

"The pressure of economic conditions has an enormous influence in producing certain types of crime. Unsanitary housing and working conditions, unemployment, wages inadequate to maintain a human standard of living, inevitably produce the crushed or distorted bodies and minds from which the army of crime is recruited. The crime problem is not merely a question of police and courts; it leads to the broader problems of public sanitation, education, home care, a living wage and industrial democracy."

10. *Work and Wealth: A Human Valuation. J. A. HOBSON. Macmillan, New York, 1914.*

"It would obviously be bad public economy to break down the lives and homes of public employees by underpaying or overworking them, or by dismissing and leaving them to starve when work was slack. For what was saved in the wage bill of the particular department would be squandered in poor law, police, hospitals, old-age pensions, invalidity and employment relief. Nor is that all. A mass of ill-paid, ill-housed workers, alternately overworked and out of work, stands as a chief barrier in every one of those paths of social progress and national development which modern statecraft sets itself to follow. The low wage of unskilled labor is today a source of infinite waste of the forces of national education. Still keeping our argument upon the narrowest lines of economy, we plainly realize that the financial resources, upon which the State can draw for all her services, depend in the last resort upon the general economic efficiency of the working population, and that a system of public employment which was, however indirectly, detrimental to this health, longevity and intelligence, would rank as bad business from the public standpoint." (Pp. 194-195.)

11. *The Public Interest Involved in Adequate Earnings.*

- (a) *Industrial Conditions in Springfield, Ill. A Survey by the Committee on Women's Work and the Department of Surveys and Exhibits, Russell Sage Foundation. June, 1916. LOUISE C. ODENCRANTZ and ZENAS L. POTTER.*

"The incomes of work people are a matter of community concern, because they fix, to a very great extent, the standard of living of workers' families. Within certain limits they determine the kinds of houses these families live in, the quality of the food they eat, the kinds of clothes they wear, the amounts they are able to put by for a rainy day, and they have a clear bearing upon the family's present and future problems of self-support and economic independence. They also set limits to the educational advantages which many workmen's children may enjoy. The incomes of wage-earners, therefore, particularly among the lower-paid working people, are

closely related to the community problems of housing, public health, compulsory education, child labor, and even charitable assistance."

- (b) *United States Children's Bureau.* HENRY B. FAVILL, M.D. *Chicago, Ill. National Child Labor Committee. Proceedings of the Fifth Annual Conference. Chicago, Ill., 1909.*

"Absolute control of the health of the individual can never be the function of the State. Control of the conditions under which the lives of the people shall be lived and their energies expended is an inevitable necessity. The State will approach this problem from the standpoint of self-preservation. Defective health is the foundation of crime, pauperism and degeneracy, as well as that widespread inefficiency due to obvious disease.

"All sociologic forces have come to recognize this fact. The physical well-being of the people is the deepest interest of the State." (Pp. 37-38.)

- (c) *Report of the Massachusetts State Board of Health, 1873.* EDWARD JARVIS, M.D.

"All additions to the physical, moral or intellectual power of individuals in any individual are, to that extent, additions to the energy and the productive force—the effectiveness of the State; and on the contrary, all deductions from these forces, whether of mind or body—every sickness, and injury or disability, every impairment of energy—take so much from the mental force, the safe administration of the body politic. * * *

"The State thus has an interest not only in the prosperity, but also in the health and strength and effective power of each one of its members." (P. 336.)

12. *Oregon Minimum Wage Cases. Supreme Court of the United States, October Term, 1916. Brief for Defendants in Error, Upon Re-argument. Felix Frankfurter, Counsel. Reprinted by the National Consumers' League.*

"The very preservation of the State and its citizens depends upon the efficiency of its industries to carry the cost of living. That is the primary function of industry. No industry which fails to supply even the bare minimum living requirements of its own workers can possibly be sound. Such an industry, instead of aiding in the work of supporting life, can be only a burden upon it by precisely the amount of subsidy which it drains from other industries.

"The fundamental policy represented by this act is the prevention of taxation upon sound industries for the artificial support of unsound ones, and the correlative direction of the energies of the State into lines which can be truly productive. Its purpose is to compel those industries which now are parasites either to make themselves self-supporting through higher efficiency or to discontinue.

"The present war and the consequent legislation in England and Germany and France emphasize, but were not required to reveal, that the strength and the safety of the State rests on man-power, which means the development and the directed organization of the

working forces of the community. From this aspect this statute of Oregon takes only a short first step in requiring industry to provide, as a very minimum, the living necessities of its own workers, particularly the workers that either are the younger workers of this generation or the mothers of the next." (Pp. A 49-A 50.)

13. *The British Official Attitude Toward Pre-war Wages. Memorandum No. 7 of the British Health of Munitions Workers' Committee (see p. 60 of the Reprint by the United States Bureau of Labor Statistics, Bulletin 221.)*

"Our national experience in industry is longer than that of any other people. It has shown clearly enough that false ideas of economic gain, blind to physiological law, must lead, as they led through the 19th century, to vast national loss and suffering. It is clear that unless our industrial life is to be guided in the future by the application of physiological science to the details of its management, it cannot hope to maintain its position hereafter among some of its foreign rivals, who already in that respect have gained a present advantage."

14. *Report of the Commissioners Appointed to Inquire Into Industrial Unrest in the Northwest Area, Paragraph 61. (See United States Bureau of Labor Statistics, Bulletin 237.)*

"After the war we have abundant evidence that the real hope of the best workers of this area is not a restoration of pre-war conditions, but a far, far better thing. As a modern social reformer writes, 'We want life raised to a higher level, and while the keenness of our sufferings and the height of our exaltation are still with us, the larger vision prevails.' and what they are waiting for here is that someone should announce from the housetops that this is what the Government is ready to carry out, with the power of the nation at their back. We have been face to face with men and women who are working for their country, and if the right message comes from those in authority, we can assure the Government that they are ready to co-operate with them in bringing about a better condition of things in the industrial world."

15. *The Impossible Principle of the "Ruling" or Local Rate. Commonwealth Arbitration Court, Australia. H. B. Higgins. Judge.*

"Most of the applicants rely mainly on the fact that what they pay is the ruling rate in a district or in an industry; but this fact is by no means conclusive. What I have to ascertain is not the ruling rate, but the fair and reasonable rate; and I have explained in McKay's case what the act means by 'fair and reasonable.' The 'ruling rate' is the rate which most employers give—the rate which they must give to purchase labor, treating labor as a mere chattel, commodity; and the rate which employees must accept rather than

be out of employment. The ruling rate is the rate obtained by individual bargaining where the employer is uncontrolled and where the employee must simply take the best terms that he can get. If, as in America, the railways were in private hands, and the railway companies were put under no conditions, the ruling scale of fares would be that which the companies demanded of a helpless public. But the State generally steps in and fixes a fair and reasonable rate. It is this rate that I have to ascertain."

16. I. M. RUBINOW, *President of the American Statistical Association. Trend in Real Wages. American Economic Review, December, 1914.*

"In years of falling or even slowly rising prices the American wage-worker was able to hold his own, or to improve his condition to a slight extent. But, when confronted with a rapidly-rising price movement, the American wage-worker, notwithstanding his strenuous efforts to adjust wages to these new price conditions; notwithstanding all his strikes, boycotts and riots; notwithstanding all the picturesque I. W. W.-ism, new unionism and the modish sabotage, has been losing surely and not even slowly, so that the sum total of economic progress in this country for the last quarter of a century appears to be a loss of from 10 to 15 per cent in his earning power."

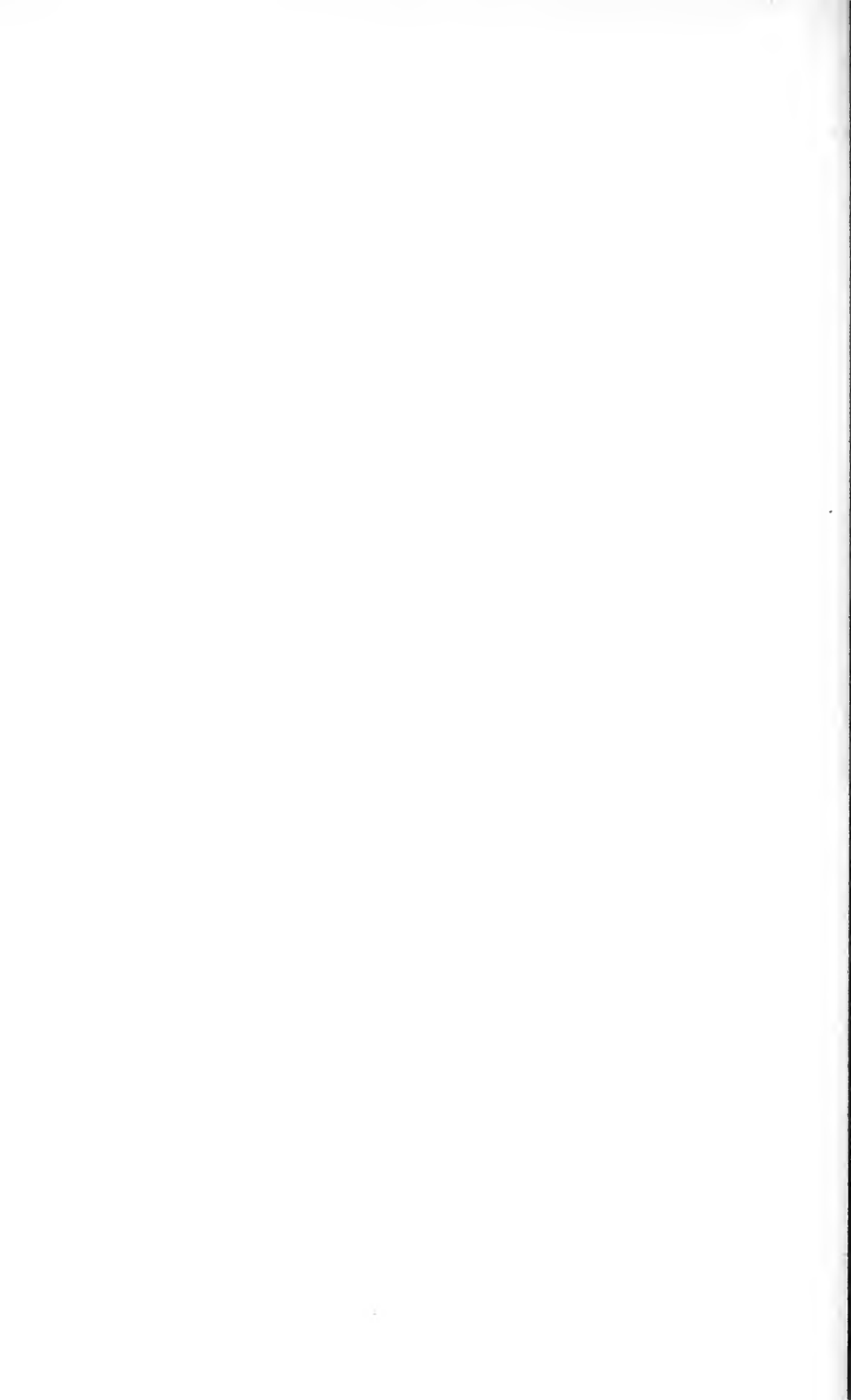
17. CHARLES A. ELLWOOD, *Professor of Sociology, University of Missouri. Sociology and Modern Social Problems. (Pp. 87, 192.)*

"This removal of industry from the home, however, while theoretically to be welcomed, has in practice under present economic conditions not always had the beneficent effect of giving more time to parents for the proper care of their children and of securing a better home life. On the contrary, the removal of industries from the home has often been followed by the removal of both parents and children, the rendering of the family's economic situation precarious, and the practical disintegration of home life. *The wages of the male worker outside of the home have too often tended to conform to the single man's standard*, though Government statistics show that the earnings of the husband constitute 80 per cent of the total income of the average wage-earner's family in the United States. Thus the census statistics of 1910 showed that the average yearly wage of all male wage-earners engaged in manufactures in the United States was only \$517.91, although research by experts established at nearly the same time the fact that the least income on which a family consisting of two parents and three young children could maintain a decent standard of living was for the city of New York, \$825 a year, and for smaller cities, \$650 a year. In the year 1915 another investigation showed that four-fifths of the heads of wage-earning families received less than \$800 a year, while it was estimated that on account of the rise in the cost of living from \$950 to \$1200, according to locality, was necessary to maintain a decent

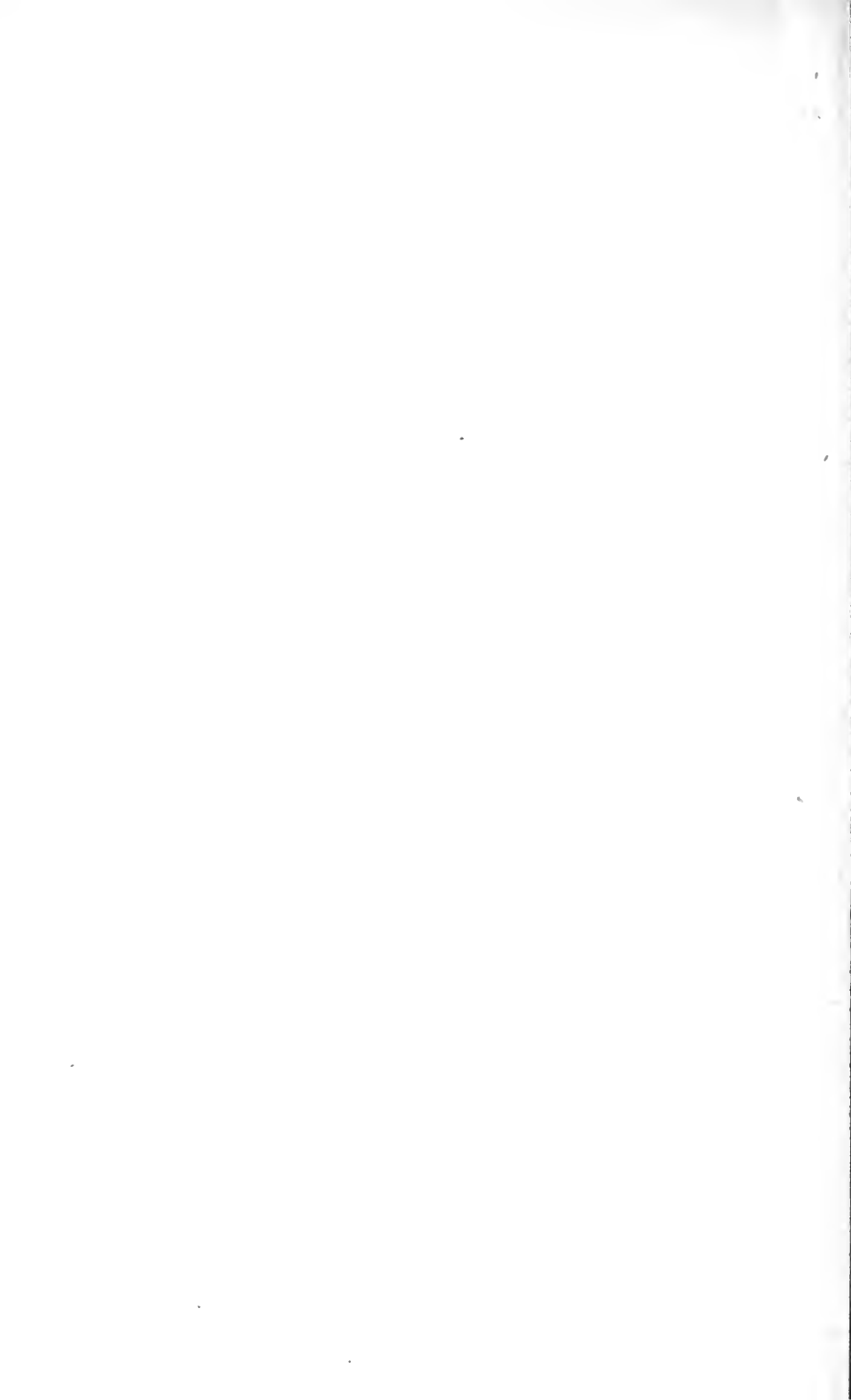
standard of living for a family of five. *Evidently modern industry has been quite regardless of the family and has, in many instances, made it very difficult to maintain a proper home life.*

* * *

“Certain unfavorable economic conditions have developed in this country of recent years for this particular element (native white American population). * * * This has led to later marriages and smaller families. Again, more intense competition along all lines has forced certain elements of the native stock into occupations where wages are low in comparison with the standard of living.”



PART II
THE LIVING WAGE



A.—OFFICIAL ORGANIZATIONS AND AGENCIES IN THE UNITED STATES

1. *Industrial Conference Called by President Wilson, 1920.*

"Considered from the standpoint of public interest, it is fundamental that the basic wages of all employees should be adequate to maintain the employee and his family in reasonable comfort, and with adequate opportunity for the education of his children. When the wages of any group fall below this standard for any length of time, the situation becomes dangerous to the well-being of the State. No country that seeks to protect its citizens from the unnecessary ravages of disease, degeneration and dangerous discontent, can consistently let the unhampered play of opposing forces result in the suppression of wages below a decent subsistence level. Above that point, there may well be a fair field for the play of competition in determining the compensation for special ability, for special strength or special risk (where risk is unavoidable), but below that point the matter becomes one of which the State for the sake of its own preservation, must take account." (Report of Industrial Conference called by the President, dated March 6, 1920, p. 37.)

2. *United States Commission on Industrial Relations, 1914.*

"The welfare of the State demands that the useful labor of every able-bodied workman should, as a minimum, be compensated by sufficient income to support in comfort himself, a wife, and at least three minor children, and in addition to provide for sickness, old age and disability. Under no other circumstances can a strong, contented and efficient citizenship be developed." (United States Commission on Industrial Relations. Report of Director of Research and Investigation embodying findings of fact, conclusions and recommendations of the staff. Signed by Commissioners Walsh, Lennon, O'Connell and Garretson, Vol. I, p. 68.)

3. *United States War Department, Office of Chief of Ordnance. General Order No. 13, on Wages, November 15, 1917.*

"Standards already established in an industry and in the locality should not be lowered. The minimum wage rate should be made in proper relation to the cost of living, and in fixing them it should be taken into consideration that the prices of necessities of life have shown great increase. Changes to meet changed prices should not, however, be made with too great rapidity, and all wage adjustments should be based on considerations which suggest at least relative permanency."

4. *Bureau of Labor Statistics, United States Department of Labor.*

The United States Bureau of Labor Statistics, in attempting to work out, practically and scientifically, a quantity budget of health

and reasonable comfort for Government employees in the city of Washington, formulated and adopted the following definitions and standards for their own guidance in making the study:

- “(1) A sufficiency of nourishing food for the maintenance of health, particularly the children’s health.
- “(2) Housing in low-rent neighborhoods and within the smallest possible number of rooms consistent with decency, but with sufficient light, heat and toilet facilities for the maintenance of health and decency.
- “(3) The upkeep of household equipment, such as kitchen utensils, bedding and linen, necessary for health, but with no provision for the purchase of additional furniture.
- “(4) Clothing sufficient for warmth, of a sufficiently good quality to be economical, but with no further regard for appearance and style than is necessary to permit the family members to appear in public and within their rather narrow social circle without slovenliness or loss of self-respect.
- “(5) A surplus over the above expenditures which would permit of only a minimum outlay for such necessary demands as:
 - “(a) Street carfares to and from work and necessary rides to stores and markets.
 - “(b) The keeping up of a modest amount of insurance.
 - “(c) Medical and dental care.
 - “(d) Contributions to churches and labor or beneficial organizations.
 - “(e) Simple amusements, such as the moving pictures once in a while, occasional street-car rides for pleasure, some Christmas gifts for the children, etc.
 - “(f) Daily newspaper.”

(Tentative Quantity and Cost Budget necessary to maintain a family of five in Washington, D. C., at a level of health and decency, July-August, 1919, United States Bureau of Labor Statistics, Washington.)

5. *Bureau of Municipal Research, City of Philadelphia.*

On December 20, 1917, the Bureau of Municipal Research of the City of Philadelphia, which was organized to promote efficient and scientific management of municipal business, submitted a tentative budget as a minimum standard of living for a workingman’s family. The statement which accompanied it shows the comprehension of a new principle, and for this reason is quoted as follows:

“A recent press notice of the Patriotic Education Society, in commenting upon the present labor situation, states that the Government must make a comprehensive study of living conditions in all sections of the United States. * * * Then Government arbitrators can say, with real knowledge of conditions, what is a fair day’s pay, instead of basing their decision on the argument of might.

“The world tragedy now upon us is forcing us to think funda-

mentally on many issues that we have been wont to pass over superficially. In the statement quoted above we have a bit of fundamental thinking on the perennial issue of a "fair day's pay" that is decidedly encouraging. *The "law of supply and demand," which has served for so long to blind men to the real social significance of the wage question, is quietly left out of account, and "living conditions" are frankly recognized as the vital factor in determining wages. In other words, we are asked henceforth to make the standard of living that we wish our citizens to maintain our prime concern in dealing with labor.*

"The Bureau of Municipal Research is in hearty agreement with this view. As a matter of fact, in its endeavor to arrive at a "fair day's pay" for laborers employed in the city government, it has begun an inquiry into the cost of living of a workingman's family in Philadelphia. *As a result of this inquiry it is hoped to establish a standard of living, expressed in actual goods and services, that will enable a family to live in a manner befitting the citizens of a great democracy.*

"For this purpose we are submitting, as a basis for discussion, merely a tentative minimum standard expressed mainly for the sake of brevity, in dollars and cents. * * * Since this standard is *so decidedly the minimum on which a family can exist*, we would be especially pleased to have your suggestion take the form of how much more ought to be added to make it a fair standard.

"The definition of what constitutes a living standard based on decency and comfort, and the need for the scientific working out of such a standard was later worked out by this same organization as follows:

"Nowadays very few persons object to the principle of a living wage. It is generally agreed that the humblest worker is entitled to a return for his services that will enable him to support himself and his family in decency and comfort and give his children a fair start in the world. *If we have failed thus far to secure a living wage for all workers, it has been due largely to differences of opinion as to the methods to be employed and to a lack of understanding of what constitutes a living wage rather than to disapproval of its principle.*

* * *

"An obstacle to its application * * * has been our lack of a definite understanding of what constitutes a living wage. Too often we have been disposed to confuse a living wage with the minimum for which a worker can be hired, forgetting that the worker is often forced by economic necessity to accept whatever wage is offered him, quite regardless of its adequacy. When we speak of a living wage, we must have in mind a certain standard of living that such a wage is to make possible. In the popular mind, however, this standard has been at best a very vague concept. Even the so-called "American standard of living," which has been bandied about so much by political orators is extremely indefinite. It is true that we have a considerable number of scientific studies of living costs in different parts of the country, but their findings are generally

expressed to such a large extent in terms of dollars and cents, rather than in actual goods and services, that, during a period of changing prices, they are of little practical value a year or so after publication. Hence the average employer, whether private or public, has naturally been inclined to pay the usual market rates, leaving the question of the resulting standard of living of his workers to take care of itself.

* * *

“The obvious need is for a definite statement, in terms of actual goods and services, of what constitutes a fair standard of living. This statement should be so expressed and detailed that it would be possible at any time to ascertain the current cost of each item enumerated therein and thus to arrive at the total cost of such a standard of living at existing price levels.” * * * (Working-men’s Standard of Living in Philadelphia. A report by the Bureau of Municipal Research of Philadelphia, William C. Beyer in charge: Rebekah P. Davis and Myra Thwing, assistants, 1919, Chapter 1.)

6. *British Reconstruction Committee on Joint Standing Industrial Councils. March 8, 1917.*

“7. In the interests of the community it is vital that after the war the co-operation of all classes, established during the war, should continue and more especially with regard to the relation between employer and employed. *For securing improvement in the latter, it is essential that any proposals put forward should offer to work people the means of attaining improved conditions of employment and a higher standard of comfort generally,* and involve the enlistment of their active and continuous co-operation in the promotion of industry.”

7. *British Minimum Rates of Wages Commission Act, 1919. (Preamble.)*

“Minimum time rates of wages should, * * * in the case of persons of the age of 18 years and upwards, be fixed at such amounts that all such persons, whether employed at a time or according to any other method of remuneration, *will be afforded an adequate living wage.*” * * *

8. *The Industrial Program of the Lloyd George Government in England Contains the Following Labor Planks:*

“A national maximum 48-hour week.

“A living wage for all workers.

“Workers to have:

(a) A voice in working conditions.

(b) A financial interest in their work.

(c) Provision for unemployment.

“Whitley councils to be developed.

“Healthy houses and expeditious transport.”

B. LEGISLATION STATE, NATIONAL AND INTERNATIONAL.

1. *United States National War Labor Board. Statement of Principles Governing the Awards of the Board, Agreed Upon in Conference Between Capital and Labor, and Proclaimed by the President, 1918.*

"*The Living Wage.* 1. The right of all workers, including common laborers, to a living wage is hereby declared.

"2. In fixing wages, minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort."

2. *Labor Provisions of the Peace Treaty, Part XIII, General Principles.*

"Art. 427. The high contracting parties, recognizing that the well-being, physical, moral and intellectual, of industrial wage-earners is of supreme international importance, have framed, in order to further this great end, the permanent machinery provided for in Section I and associated with that of the League of Nations.

"They recognize that differences of climate, habits and customs, of economic opportunity and industrial tradition, make strict uniformity in the conditions of labor difficult of immediate attainment. But, holding as they do, that labor should not be regarded merely as an article of commerce, they think that there are methods and principles for regulating labor conditions which all industrial communities should endeavor to apply, so far as their special circumstances will permit.

"Among these methods and principles, the following seem to the high contracting parties to be of special and urgent importance.

* * *

"Third.—The payment to the employed of a wage adequate to maintain a reasonable standard of life as this is understood in their time and country."

3. *State of Kansas. Act Creating a Court of Industrial Relations, 1920.*

"Section 9. It is hereby declared necessary for the promotion of the general welfare that workers engaged in any of said industries, employments, utilities or common carriers shall receive at all times a fair wage and have healthful and moral surroundings while engaged in such labor."

4. *Chap. 547, General Laws of Minnesota, 1913.*

"Sec. 12. Every employer in any occupation in hereby prohibited from employing any worker at less than the living wage or minimum

wage as defined in this act and determined in an order of the Commission, and it shall be unlawful for any employer to employ any worker at less than said living or minimum wage."

5. *Federal Transportation Act, 1920.*

"Sec. 307(d). All the decisions of the Labor Board in respect to wages or salaries, and of the Labor Board or an adjustment board in respect to working conditions of employees or subordinate officials of carriers shall establish rates of wages and salaries and standards of working conditions which in the opinion of the board are just and reasonable. In determining the justness and reasonableness of such wages and salaries or working conditions the board shall, so far as applicable, take into consideration among other relevant circumstances:

- "(1) The scales of wages paid for similar kinds of work in other industries;
- "(2) The relation between wages and the cost of living;
- "(3) The hazards of the employment;
- "(4) The training and skill required;
- "(5) The degree of responsibility;
- "(6) The character and regularity of the employment, and
- "(7) Inequalities of increases in wages or of treatment, the result of previous wage orders or adjustments."

6. *House of Commons, Great Britain. (British Sessional Papers, Vol. VIII, 1908.*

"It is doubtful whether there is any more important condition of individual and general well-being than the possibility of obtaining an income sufficient to enable those who earn it to secure, at any rate, the necessities of life. (p. 14.)

C. COURT DECISIONS AND ARBITRATION AWARDS.

1. *United States Bituminous Coal Commission. Award and Recommendations. Washington, Government Printing Office, 1920. (p. 36.)*

"We have decided to award as a substitute for the 14 per cent increase, authorized by Dr. Garfield, a wage increase that is considerably higher. *In arriving at the present wage award we were guided by the principle that every industry must support its workers according to the American standard of living.*"

2. *Award in Packing-House Industries. Judge Alschuler. In the Matter of the Arbitration of Six Questions Concerning Wages, Hours and Conditions of Labor in Certain Packing-House Industries, by Agreement Submitted for Decision to a United States Administrator, February, 1918, from Handbook of Industrial Relations and Conditions. (p. 617.)*

"The evidence for the employees and employers as well, is unanimous to the effect that whatever the economic workday is found to be

it should under normal conditions afford to the workman a day's living wage for himself and family of average size, generally considered to be wife and three children of about school age. The proposition itself is too clear to require elaboration. The superintendents agreed that while so-called market price of labor, as evidenced by what other industries pay for it, should have some influence, yet in any event it should be a living wage.

"While it might seem that the term 'living wage' should itself fix its boundaries and convey its significance, it is one of those phrases not capable of exact definition, but is quite dependent on the viewpoint of the one who employs it. While it might generally be understood to be a wage affording a living suited to one's condition in life, it could hardly be said that if because of an unreasonably low wage the condition in life of the employee sinks low, but that his family manages to subsist thereon, that the condition in life of this family is thereby established, and that the wage paid is suited thereto. A living wage surely imports something more than this. On the other hand, the common laborer's living wage cannot under the existing orders of things be said to include extravagances and superfluities which only those of large means can afford."

3. *Kansas Court of Industrial Relations. In the Court of Industrial Relations, State of Kansas. State of Kansas on relation of Richard J. Hopkins, Attorney-General W. J. Price, et al. complainants vs. The Topeka Edison Company, a corporation, respondent, opinion and order, March 29, 1920.*

"A living wage may be defined as a wage which enables the worker to supply himself and those absolutely dependent upon him with sufficient food to maintain life and health; with a shelter from the inclemencies of the weather; with sufficient clothing to preserve the body from the cold and to enable persons to mingle among their fellows in such ways as may be necessary in the preservation of life. But it is not a living wage only which this court is commanded by the people of this State to assure workers engaged in these essential industries. The statute uses the word 'fair' and commands us to assure to these workers a 'fair' wage. What is a fair wage? Upon this subject, of course, there may be a great variety of opinions expressed. It seems safe to say, however, that the circumstances above enumerated should be considered in arriving at a conclusion as to what constitutes a fair wage. The skilled worker, in fairness, should have a higher wage than the unskilled worker. The worker who has spent years of time and effort in preparing himself for a peculiarly technical line of work is entitled to greater consideration from the public than the more unskilled worker. The hazards of the employment should also be noted, and the worker engaged in such an employment as that under consideration should receive a higher wage than his fellow who may be engaged in a safe occupation. The degree of responsibility placed upon the worker is a matter of importance. The continuity and regularity of the employ-

ment should be considered, for it is apparent that an employment which is seasonal in its nature must have a higher wage than one in which regular steady work is offered, because, after all, it is the annual earnings that are to govern rather than the daily wage in many instances. By no means the least important consideration should be the industry and fidelity of the individual, for the worker who is faithful to his trust and is industrious, working to the best of his ability in the interest of his employer, is entitled, as a matter of right, to a greater reward than the worker who thinks only of his wage and not of the interest of his employer and of the public who are directly affected by his labors. Perhaps more important than any other circumstances, however, is the relation of the wage to the cost of living."

4. *Court of Inquiry Relative to London Dock Workers, Great Britain. Industrial Courts Act 1919: Report by a Court of Inquiry Concerning the Transport Workers, Wages and Conditions of Employment on Dock Labor. London, 1920.*

"What is a better standard of living? By this is not meant a right to have merely a subsistence allowance, in the sense of keeping the soul and body of the worker together, but a right to have life ordered upon a higher standard, with full regard to those comforts and decencies which are promotive of better habits, which give a chance for the development of a greater sense of self-respect, and which betoken a higher regard for the place occupied by these workers in the scheme of citizenship. The court did not discourage this view; on the contrary, it approved it; and it is fair to the Port authorities and employer to say that its soundness was not questioned. In the opinion of the court the time has gone past for assessing the value of human labor at the poverty line."

"11. The result of the evidence was rather peculiar. At first it appeared that the figures laid down by the claimants were out of all proportion to any reasonable increase in pre-war figures of remuneration. A budget was presented in which the standard family was taken as that of a man having a wife and three children, none of the children being able to contribute to the family income. It must be observed that a minimum fixed as applicable to such a type is fixed as for a period in the life of the family at which the outgoings are the heaviest, with no corresponding incoming from the family itself to lighten the burden. A minimum accordingly so fixed is one under which a bachelor workman at the one end of the scale, and a workman with one or two of his family in employment at the other end of the scale, would stand very largely to gain.

"The court mentions this because it must prove a modifying circumstance in consideration of the topic by employers as a whole. And it has greatly added to the difficulty of settling a general figure, and has, in fact, given the court much anxiety. If, for instance, the bachelor could have been separately treated probably not one would have seen any objection in principle to doing so. *But to provide*

that that class of workmen was to receive less remuneration than his married comrade would, in the conditions in which dock labor is selected, prove an impracticable proposal. The cheaper labor would tend to have the better chance of the job, and the ranks of the unemployed casual would be more and more filled by the very men whose needs were the greatest, those with dependents.

"12. When the case of the employer was presented, however, no attempt was made to object to the typical standard of family just mentioned. On the contrary, that standard (one often chosen in economic discussion) appeared to be accepted." * * *

5. *Commonwealth of Australia, Arbitration Reports.* HENRY BOURNES HIGGINS, Judge.

"The test of a fair and reasonable standard is a wage sufficient for the normal needs of the average employee residing in a civilized community. The essential needs are food, shelter and clothing. A full and general allowance for this should be made the average man who may be assumed to support an average family consisting of himself, his wife and three dependent children. *This living wage must be kept sacro sanct for all employees.* (2 Commonwealth Arbitration Reports, p. 3-5.)

* * *

"A growing sense of the value of human life seems to be at the back of all these methods of regulating labor; a growing conviction that human life is too valuable to be the shuttle-cock in the game of money-making and competition; a growing resolve that the injurious strain of the contest, but only so far as it is injurious, shall, so far as possible, be shifted from the human instruments. (Commonwealth Arbitration Reports, p. 101.)

* * *

* * * "It ought to be frankly admitted that, as a rule, the economic position of the individual employee is too weak for him to hold his own in the unequal contest. He is unable to insist on the 'fair thing.' The power of the employer to withhold bread is a much more effective weapon than the power of the employee to refuse to labor. Freedom of contract, under such circumstances, is surely misnamed; it should rather be called despotism in contract; and this court is empowered to fix a minimum wage as a check on the despotic power. The fact that the court is not also empowered to fix a maximum wage (as under the Elizabethan laws) is a recognition of the difference in the position of the contracting parties. The worker is in the same position, in principle, as Esau, when he surrendered his birthright for a square meal, or as a traveler, when he had to give up his money to a highwayman for the privilege of life. Admitting all this, yet an employer often falls back on an economic theory as to the law of demand and supply—a theory which I have found to be responsible for much industrial friction, and to be at the root of many industrial disputes. He thinks that all this regulation of wages is a mistake—a defiance of natural laws. He treats the so-called 'law' as being, in matters of wages, etc., more inexorable and

inevitable in its play than even the law of gravitation—as not being subject, as ‘laws’ of nature are, to counter-action, to control, to direction. One may dam up a river, or even change its course, but one cannot (it is said) raise wages above the level of its unregulated price, above the level of a sum which a man will accept rather than be starved.” (5 Commonwealth Arbitration Reports, pp. 27, 28.)

6. *Industrial Peace in Australia through Minimum Wage and Arbitration*, by HENRY BOURNES HIGGINS, *President of the Australian Court of Conciliation and Arbitration. From Monthly Review of the United States Bureau of Labor Statistics, February, 1916 (p. 4, 22).*

“1. One cannot conceive of industrial peace unless the employee has secured to him wages sufficient for the essentials of human existence. (Boot factories 4 Com. Arb., 1, 10 (1910; Seamen, 5 Com. Arb., 147, 164 [1911]).

“2. This, the basic wage, must secure to the employee enough wherewith to renew his strength and to maintain his home from day to day. (Broken Hill Mine, 3 Com. Arb., 1, 20 [1909]).

“3. The basic wage is the same for the employee with no family as for the employee with a large family. It rests on Walt Whitman’s ‘divine average,’ and the employer need not concern himself with his employee’s domestic affairs.

* * *

“Men accept the doom, the blessing of work; they do not dispute the necessity of the struggle with nature for existence. They are willing enough to work, but even good work does not necessarily insure a proper human subsistence, and when they protest against this condition of things they are told that their aims are too ‘materialistic.’ Give them relief from their materialistic anxiety; give them reasonable certainty that their essential material needs will be met by honest work, and you release infinite stores of human energy for higher efforts, for nobler ideals, when ‘body gets its sop, and holds its noise, and leaves soul free a little.’ ”

7. PROFESSOR BROWN, *Industrial Court of South Australia. Yale Review, New Haven, Conn., Vol. XXVII, February, 1918.*

* * * “The potential economy of high wages, so often insisted upon by economists, cannot be ignored by industrial courts. In order to make possible a high state of industrial efficiency on the part of the employees, it is necessary that the wages should be such as to insure the workman sufficient to maintain him in a high state of industrial efficiency and to provide his family with the necessities for physical health and physical well-being. The mistake is often made by private employers, which is often, and, I fear, justly, attributed to governments, the mistake of seeking efficiency through economics rather than economics through efficiency.

"But the argument does not stand on this basis alone. It stands also on the broader basis of the interests of society. *Malnutrition, whether of the workman, or of his wife and children, spells for national inefficiency. Further * * * a low estimate of the living wage places a premium both on celibacy and on a low birth rate.*"

8. *Award of Arbitration Board.* JAMES J. STORROW of Lee, Higginson & Company, Chairman, in the case of the Boston Elevated Railroad, 1914.

"The cost of living probably does determine, or nearly determine, the wages of the man receiving the smallest pay; but, as you rise in the scale of wages, you obviously gradually depart from the mere cost of living, and, instead of paying to a man a wage determined by the necessary cost of living, you begin to take take into account, skill, ability, judgment, knowledge and other factors. If a company needs in its employ a man having ability, skill, knowledge and judgment, it must pay for these qualities. It cannot secure such a man by saying to him: 'We will pay you the cost of living.' These qualities have a value, and a man is paid accordingly. Then the employee so paid for these qualities proceeds, as is the custom with all sensible men, to live upon a scale which is in accord with his income; but the scale of living is not the cost of living, and it is confusing to treat these two things as being the same."

9. EDWIN B. O'HARA, *Chairman of Industrial Welfare Commission of the State of Oregon. Living Wage by Legislation—The Oregon Experience.*

"The right to a living wage vindicated by this judicial decision (Oregon Supreme Court sustaining minimum wage law) is the right of a human being to develop his personality, to work out a spiritual destiny, to be what the word human implies.

* * *

"To the person who thinks that labor is merely a commodity minimum wage legislation must indeed seem radical."

D. OPINIONS OF PUBLIC MEN AND WOMEN.

1. *President Wilson's Inaugural Address, 1913.*

"* * * There can be no equality of opportunity, the first essence of justice in the body politic, if men and women and children be not shielded in their lives, their very vitality, from the consequences of great industrial and social processes which they cannot alter, control or singly cope with. Society must see to it that it does not itself crush or weaken or damage its own constituent parts. The first duty of law is to keep sound the society it serves. Sanitary laws, pure-food laws and laws determining the conditions of labor which individuals are powerless to determine for themselves are intimate parts of the very business of justice and legal efficiency.

"One of the hopeful signs of the times is the fact that we are beginning to hear and to understand this 'solemn moving undertone of our life,' and our social legislation shows signs of an earnest desire to alleviate the dead burden of misery under which our toilers stagger and groan. The State is gradually growing, through the development of its so-called police power, into the stature and dignity of 'parens patriae,' guardian or custodian of the public welfare. Honest business has nothing to fear from the exercise by the State of this sovereign obligation, for the temper of our people is eminently conservative, and, though they may sometimes err in their choice of means, their sober judgment will not permit them to stray far afield from an impartial application of the strict principles of equity and justice. The business employer who objects to the payment of a living wage, I leave to meditate upon this solemn thought: 'He that sheddeth blood and he that defraudeth the laborer of his hire are brothers. The bread of the needy is the life of the poor; he that defraudeth them thereof is a man of blood.'"

(Letter of February 13, 1920, to the Representatives of the Railroad Labor Organizations in the Matter of Referring the Wage Demands of the Latter to the Railroad Labor Board.)

"Washington, D. C., February 13, 1920.

"Gentlemen:

"I address you as the Chief Executives of the largest railroad organizations, which are among the most important industrial democracies in the country. I ask you to bring this message and its enclosure to the attention of your members on all the railroads, to the end that they, at first hand, may understand the Government's views as to the present situation. * * *

"I wish therefore, to announce to all railroad employees at this time that I propose to carry out the following steps. * * *

"3. I shall at once constitute a committee of experts to take the data already available in the various records of the United States Railroad Administration, including the records of the Lane Commission and of the Board of Railroad Wages and Working Conditions, and to analyze the same so as to develop in the shortest pos-

sible time the facts bearing upon a just and reasonable basis of wages for the various classes of railroad employees with due regard to all factors reasonably bearing upon the problem and specifically to the factors of the average of wages paid for similar or analogous labor for other industries in this country, the cost of living and a *fair living wage*, so as to get the problems in shape for the earliest possible final disposition. The views of this Board will serve as a guide to me in carrying out the assurance I gave to the employees last summer that I would use the full influence of the Executive to see that justice was done them, and will, I believe, be a means of avoiding what might be a long-drawn-out investigation of facts."

2. *Theodore Roosevelt, Ex-President.*

"We hold with Lincoln that labor deserves higher consideration than capital. Therefore, we hold that labor has a right to the means of life—that *there must be a living wage.*"

Message to the First Session of the Fifty-seventh Congress. Addresses and Presidential Messages. Putnam & Sons, New York, 1904, p. 298.

"With the sole exception of the farming interest, no one matter is of such vital moment to our whole people as the welfare of wage-workers. If the farmer and the wage-worker are well off, it is absolutely certain that all others will be well off, too."

Address and Papers, Edited by WILLIS F. JOHNSON. Sun Dial Classics Co. New York, 1909, p. 91.

In discussing a change in tariff, Ex-President Roosevelt said:

"The one consideration which must never be overlooked in a tariff change is the imperative need of preserving the American standard of living for the American workingman.

* * *

"At all hazards, and no matter what else is sought for or accomplished by changes of the tariff, the American workingman must be protected in his standard of wages; that is, in his standard of living, and must be secured the fullest opportunity for employment. * * * The general tariff policy to which, without regard to changes in detail, I believe this country to be irrevocably committed, is fundamentally based upon simple recognition of the difference in labor cost here and abroad; in other words, the recognition of the need for full development of the intelligence, the comfort, the high standard of civilized living and the inventive genius of the American workingman as compared to the workingman of any other country in the world."

3. *Maj.-Gen. Wood. Capital, Labor and the Golden Rule. Leonard Wood on National Issues. Compiled by E. J. David, 1920, p. 21.*

"He should receive a wage that not alone permits him to keep

body and soul together, but enables him to lay by something for the future."

4. *Annual Report of the Secretary of the Navy, 1919.*

"Labor was the rock upon which our preparation and supplies depended. It was mobilized and efficient. Acting with closest accord with the Department of Labor, it was the privilege of the Navy to aid in stabilizing labor and in proving that the Government is the best employer. The day of giving to skill and toil a mere living wage has passed. It is entitled, after a fair day's work, to a fair day's wage, sufficient for comforts and some luxuries as well as necessities. Navy wages have never lagged. They have generally led, and for good pay it has, from its patriotic workers, received a good day's work. Without the greatly increased production due to the skill and industry and fine spirit of patriots in overalls our men in arms could not have been furnished the required munitions and supplies."

5. *Wm. C. Redfield, Former Secretary of Commerce. The New Industrial Day. A Book for Men Who Employ Men. Century Company, New York, 1912.*

"The industrial manager of today must take a different attitude toward labor from that which has been common in the past. The day when the largest output was asked for the smallest wage in passing, not to return, for that theory of production is being proved false and expensive. It has been coincident with such waste in other ways, and provocative of such expense in many forms, that with increasing knowledge it has been outgrown and is being discarded.

"The keen and careful manager of a modern plant will rather follow the law of the greatest output and the greatest wage. His thought will go to the reduction of his burden charges, to removing the cost for repairs, to keeping his producing machines moving through the largest possible percentage of the working day, to stopping the production of 'seconds,' to providing the uninterrupted flow of material, to cutting out the waste of time and effort; and in these productive ways he will find his time so profitably occupied that the payroll may be forgotten, save that he will, to the extent that he is wise, see that it is commensurate with the productiveness of his operatives. We may even hope that ere long he will come to say with true pride: 'We pay the largest wages, and we have, therefore, the lowest labor cost.' (Pp. 39-40.)

"He will not crowd the soul and life out of his workmen, but will recognize that their prosperity and his are bound in one, and that if his product is to be brought low in cost it must be by furnishing them the very best tools and equipment and the most favorable working conditions, because only when that is done and liberal pay with continuous employment is added to it can one get that self-discipline enforced which is the life of a high-grade, modern shop. * * *

Such a manufacturer will look closely and ceaselessly at his rate and quality of product, and at its sure and steady flow. He will watch his wastes and his unproductive expenses, but the last thing that will worry him will be the rate of wage. If his goods come out with few or no seconds, if his ratio of repairs and 'returns' is small, if his waste of time and material is kept to a low limit, if his shop is well balanced, if the spirit in his works is that of earnest, steady, quiet enthusiasm; if he is a leader to his men and not a tyrant over them, he will be content if his men earn high wages, for his cost sheets will be right. (Pp. 58-59.)

"We must learn that efficiency means three things that always go together and cannot be separated—the increase in our output and its improved quality, the increase in what we pay our workers and, because of these, the decrease both in the direct and indirect cost of what we make. (Pp. 71-72.)

"Not long ago the superintendent of a Southern cotton mill said to his employer: 'I cut down our labor cost last month.'

"'Did you reduce the wages?' he was asked.

"'No, I raised them; but I got more done.'" (P. 133.)

6. FREDERICK ALMY, *General Secretary, Charity Organization, Buffalo, N. Y. Letter to New York Factory Investigation Commission, Report, 1915, p. 682.*

"Fortunately, the price of men is going up in America. This is partly through organization and a higher standard of living, but legislation can assist. It is no more against freedom of contract to forbid a man to sell his labor for less than a living wage than to forbid him to sell money as usury. Cheap men make cheap citizens, and it is just as much against public policy to buy men too cheap as to sell money too dear, no matter how much both parties may desire it. Pope Leo XIII declared for a living wage in 1891 in his encyclical 'Rerum Novarum,' and so did the Federal Council of the Protestant Churches of Christ in America in 1910. Higher wages do not make higher living, but they make higher living possible, and poor living is very costly to the State, especially with universal suffrage."

7. WALTER LIPPMAN, *Editor, New Republic. 2: Sup. 1-8. March 27, 1915.*

"Or you can insist * * * that a business which does not pay a living wage is not paying its labor costs; that such businesses are humanly insolvent, for in paying less than a living wage they are guilty of as bad business practice and far worse moral practice than if they were paying dividends out of assets."

8. *True Basis of the Living Wage.* ROBT. S. WALPOLE. *Public Opinion. Melbourne, 1912.*

"The writer believes that the plan suggested for fixing once and for all a 'living wage,' on lines allowing for reasonable comfort and

the higher standard of living demanded by the Anglo-Saxon race, together with the fact that every worker would at that fixed wage toe the line and, in proportion to the energy and skill given off by him, be the gainer in a larger payment for the work done, would be the best means of ensuring peace. The agitator, who is generally a non-worker not practically interested in the trade, would find his occupation gone."

9. JAMES ROSCOE DAY, *Chancellor of Syracuse University. My Neighbor The Working Man. New York, 1920, p. 359.*

"Thinking men and women will see that we must have the best conditions possible for our laboring men. The country demands it. Our civilization, our progress, our prosperity, have their roots in the contentment and thrift of the men of mechanic arts and manual labor. The better homes they live in, the more comforts within these homes, the nearer they live like the well-to-do, the more promptly their bills are paid, the more like other folks they and their wives dress, the more self-respecting their boys and girls are, the better it is for our land and country, the greater country we shall have. Our prosperity is not in the number of our millionaires, even if it is seldom that one of them lives to himself, but it is the general thrift and frugality and happiness of the average man. I purposely avoid saying the common people, for I was reared to respect and revere the honest, temperate, hard-working American man, who daily bends his back to the common burden. *It will be a sad day for this land when that man cannot dig enough out of life's task to make a happy home for his family. The divine obligation is upon him. The man who does not care for his own household is worse than an infidel, is the teaching of the Holy Scriptures. And a land which does not provide for the possibilities of that family's self-support, in its laws and economics, and enforces those possibilities by a vigorous common sentiment, should not call itself a Christian land.*

"We want, therefore, the highest and noblest estate for our fellow-workers who labor for wage. *It should be inculcated as a common sentiment, not as a concession and in no form of charity. It must be arranged so that it is a right, as much as the right to trade at a profit, and to manufacture, and to build, and to invest for legitimate gain. The workingman must be on the same plane with his prosperous neighbors.*

10. JOHN D. WORKS, *Formerly Justice of the Supreme Court of California, Formerly United States Senator. Man's Duty to Man, P. 53.*

"If this class (the wage-earner) of our people were paid fair wages, living wages; were furnished with healthful and comfortable places in which to work, and were provided with sanitary places in which to live when the day's work was over, it would rejuvenate thousands of them. * * *

"The world owes them an opportunity to make a living and the right to live respectably."

11. OTTO H. KAHN. *National Civic Federation Review*, May 15, 1919. *Labor and the Golden Rule*.

"The principle on which one should deal with the labor question is very simple. It is the principle of the Golden Rule. I think the formula should be that, first of all, labor is entitled to a living wage. After that, capital is entitled to a living wage. What is left over belongs to both capital and labor, in such proportion as fairness and equity and reason shall determine in all cases.

* * *

"The worker must receive a wage which not only permits him to keep body and soul together, but to lay something by for a rainy day to take care of his wife and children, and to have his due share of the comforts, joys and recreations of life."

12. JOSEPH HUSSLEIN, S.J., *The World Problem*. New York, 1918. Page 91.

"Every toiler has the right to a living wage, a right which takes precedence over every other consideration excepting only the right which the employer himself has to a remuneration which will enable him and his family to live in reasonable and moderate comfort according to their position in life. It is important, moreover, for both employer and employee that the continuance and welfare of the industry itself be wisely constituted. Beyond this there can be no question of any profits until the living wage has been paid to the employees.

* * *

"What, then, is a living wage? In general it is defined by Pope Leo XIII as a remuneration 'sufficient to support the wage-earner in reasonable and frugal comfort.' For the adult male worker, according to the expressions of the Encyclical, it is a wage 'sufficient to enable him to maintain himself, his wife and his children in reasonable comfort.' For the adult woman worker it is a wage 'whereby she can reasonably and decently support herself away from home.' "

13. CHARLES EDWARD RUSSELL. *Resolution by Mr. Charles Edward Russell. President's First National Industrial Conference, October 14, 1919, Page 288*.

"The basic principle of wages should be this, that they should first be equitable under existing conditions and then that without imposing any necessity or occasion for strikes to obtain that end they should automatically, on the foundation of an agreed-upon index number of prices, follow changes in the cost of living. In determining what is an equitable wage, there should be taken into consideration the profits of the industry concerned, the requirements (scientifically ascertained) for normal and wholesome life, with a reasonable margin to be added for comfort, culture and recreation."

14. MRS. GLENDOWER EVANS, *The Social Aspects of the Public Regulation of Wages*. In *American Economic Review*, Vol. V, 1915, Page 271.

"At the earlier meetings of the Wage Board it was interesting to observe the attitude of the employers toward the question of low wages. All were indignant that wages were claimed to be lower in their industry than in others, and protested that the figures must be wrong, regardless of the fact that they had been gathered from payrolls. The horror which all expressed at wages too low to allow a decent living argued well for their liberality when it should come to fixing a minimum wage.

"It was readily agreed that an industry which paid wages too low to support its employees in health and efficiency was parasitic. And it was further agreed that, from an economic point of view, the question whether or not a person was a member of a family group was immaterial.

"The requirements laid down by the commission as necessary for self-support were: Respectable lodging, three meals a day and suitable clothing, some provision for recreation, self-improvement and care of health."

15. MARGARET DREIER ROBINS. *From Presidential Address to the Fourth Biennial Convention National Women's Trade Union League, St. Louis, June 2, 1913.*

"Today, however, thoughtful men and women everywhere are realizing the individual and social menace of the low wage, and there is a general recognition of the fact that in a great, rich, empty country able-bodied men and women should find it possible to earn their living by their day's work. * * * The right to live and the right to earn a living are indistinguishable terms.* * * Just as the most important knowledge to the worker is the value of his or her labor power, so the most important knowledge to the employer is that a living wage is the first charge upon any industry. * * * A living wage must certainly mean sufficient reward for labor to provide health-giving food, good clothing, shelter with sunlight and air and warmth and comfort, education and recreation—books and music—sufficient reward to tide over periods of sickness or other unemployment, and to make provision for a happy and serene old age. It must give opportunity and time not only for the development of the powers within us, but also for expression of human fellowship."

16. PREMIER LLOYD GEORGE of Great Britain, in "*The Future*," 1920.

"Millions of gallant young men have fought for the new world. Hundreds of thousands died to establish it. If we fail to honor the promise given to them, we dishonor ourselves.

"What does a new world mean? What was the old world like? It was a world where toil for myriads of honest workers—men and women—purchased nothing better than squalor, penury, anxiety

and wretchedness—a world scarred by slums and disgraced by sweating, where unemployment through the vicissitudes of industry brought despair to multitudes of humble homes; a world where, side by side with want, there was waste of the inexhaustible riches of the earth, partly through ignorance and want of forethought, partly through intrenched selfishness.

“If we renew the lease of that world, we shall betray the heroic dead. We shall be guilty of the basest perfidy that ever blackened a people’s fame. Nay, we shall store up retribution for ourselves and for our children. The old world must and will come to an end. No effort can shore it up much longer. If there be any who feel inclined to maintain it, let them beware lest it fall upon them and overwhelm them and their households in ruin.

“It should be the sublime duty of all, without thought of partisanship, to help in building up the new world, where labor shall have its just reward, and indolence alone shall suffer want.”

17. WINSTON CHURCHILL, *President of the British Board of Trade.*

* * * “It is a serious national evil that any class of His Majesty’s subjects should receive less than a living wage in return for their utmost exertions. It was formerly supposed that the working of the laws of supply and demand would naturally regulate or eliminate that evil. The first clear division which we make on the question today is between healthy and unhealthy conditions of bargaining. That is the first broad division which we make in the general statement that the laws of supply and demand will ultimately produce a fair price. Where in the great staple trades in the country you have a powerful organization on both sides, where you have responsible leaders able to bind their constituents to their decision, where that organization is conjoint with an automatic scale of wages or arrangements for avoiding a deadlock by means of arbitration, there you have a healthy bargaining which increases the competitive power of the industry, enforces a progressive standard of life and the productive scale, and continually weaves capital and labor more closely together. But where you have what we call sweated trades, you have no organization, no parity of bargaining; the good employer is undercut by the bad, and the bad employer is undercut by the worst. The worker, whose whole livelihood depends upon the industry, is undersold by the worker who only takes the trade up as a second string. His feebleness and ignorance generally renders the worker an easy prey to the tyranny of the masters and middle men, only a step higher up the ladder than the worker, and held in the same relentless grip of forces—where those conditions prevail you have not a condition of progress, but a condition of progressive degeneration. Just as in the former, the upward progress will be constant if nobody or no law gives a downward tendency, so it is that the degeneration will continue, and there is no reason why it should not continue in a sort of squalid welter for a period, which compared with our brief lives, is indefinite.” (P. 388.)

18. B. SEEBOHM ROWNTREE. *The Human Needs of Labor*. London, Nelson, 1918. Pp. 9-10.

"The war has torn the scales from our eyes and forced us to see things as they really are, and by the light of this clearer vision we have come to regard many conditions as intolerable which before had only seemed inevitable. This is especially true of the conditions in which unskilled laborers, both in industry and agriculture, were living before the war. There is no denying the fact that the wages of the great majority of them were not, in any true sense, *living* wages. They did not provide for the reasonable human needs of men and women living in a civilized community.

"As a nation, however, we acquiesced in the state of things. We were so familiar with it that its evils failed to impress us. Even in our progressive and sanguine moods, the utmost that we hoped for was a very gradual and a very tentative improvement.

"But the war has changed all this. We have completely revised our notions as to what is possible or impossible. We have seen accomplished within a few brief months or years reforms to which we should have assigned, not decades, but generations.

"I do not believe for a moment that in the future we shall allow millions of our fellow-countrymen, through no fault of their own, to pass through life ill-housed, ill-clothed, ill-fed, ill-educated. But if their conditions are to be remedied, the present scale of wages for unskilled laborers must be materially raised."

19. SHADWELL, A.S. *Industrial Efficiency*, Vol. II. London, 1906. P. 125.

"Wages are the incentive to work, and must be adequate to produce it. This is the real meaning of the 'living wage.' Men may be forced by their necessities, in accordance with the law of supply and demand, to work for wages below a standard which they consider acceptable and call a living wage. Some term this, the 'higgling of the market,' and uphold it as based on economic principles; others call it 'sweating,' and denounce it as opposed to human principles."

E.—OPINIONS OF ECONOMISTS

1. PROFESSOR WILLIAM F. WILLOUGHBY of *Princeton University*. *Presidential Address Before the American Association for Labor Legislation in December, 1913*.

"We hold, therefore, that the refusal by the State, which alone has the power of enacting and enforcing general rules of conduct to determine the minimum conditions of health, security and comfort which the public conscience demands as the birthright of all, its refusal to prevent the exploitation of the weak and helpless through excessive hours of labor or payment of inadequate compensation, and its refusal to insure that due provision will be made, through insurance institutions, or otherwise, against the four great contin-

gencies threatening the economic security of the individual—accident, sickness, old age and inability to work, means its failure to meet that duty which it is the prime function of a constitutional government to perform: viz., the protection of the individual against oppression and the guaranteeing to him of the fullest possible enjoyment of life, liberty and the pursuit of happiness.”

2. JACOB H. HOLLANDER, *Professor of Political Economy, Johns Hopkins University. The Abolition of Poverty, 1919.*

“A sufficient wage can best be assured the laborer by State intervention defining minimum wage conditions. This is the assertion of no new principle. From the beginning of modern factory legislation, the State has time and again intervened to establish a competitive base line in industrial enterprise whenever it has become clear that free contract fails to insure conditions of employment compatible with the social interest. In this manner the length of the working day, the employment of women and children, the safeguarding of dangerous processes, have heretofore been defined as to least favorable terms by legal enactment. The motive of such legislation has been to replace, by exercise of the State’s police power, that minimum well-being which the wage-earner cannot secure for himself and which it is essential for the safeguarding of society, that he should enjoy. The same intervention is now invoked to establish as a minimum wage—for less than which it shall not be lawful for employers to contract or laborers to engage—an amount not less than the necessary cost of maintaining the worker’s family in health and decency.”

3. PROFESSOR M. E. JAFFA, *University of California. Report on Food Prices and the Proper Nutrition of Workingmen’s Families.*

* * * “Only a certain proportion of people can maintain health on a minimum—which provides only that amount of energy which the body actually puts forth in the processes of living and working. It provides no safety factor and allows for no individual differences. No person should be held down to a minimum when the appetite and apparent bodily needs seem to call for more. A minimum expresses the line below which it is dangerous to go. * * *

“Much has been accomplished by many people by substituting one food for another as prices have changed. Some of this has been legitimate and helpful; some has been unwise and detrimental.

* * * “On a low income people can afford only a small quantity of the concentrated foods—meat, eggs, butter and sugar—the largest proportion of their diet coming from the starchy foods which are ‘bulky’ and furnish the cheapest form of nourishment for the money expended. As the income goes up and people are free to exercise their instinctive choice, the use of meat, eggs, butter, sugar, etc., increases, and the starchy foods are decreased and replaced in part by the other classes of bulky foods—fruits and vegetables—

which are more expensive for the nourishment they contain, and are, therefore, not used freely by poorer people." * * *

4. DR. JESSICA B. PEINOTTO, *University of California. A Minimum Budgetary Estimate for Pacific Coast Workers.*

* * * "When the normal breadwinner is paid less than this sum, one of three things, any one of them harmful for the group and for the community, is likely to happen:

"1. Other members of the family will have to work to eke out the income, or

"2. There will be less food than is necessary for the men to do efficient work. The risks of ill-health to all members of the group and the consequent costs to the group and to society are equally plain; or,

"3. The group must go without many of the articles noted under Sundries and House Operations. The probabilities of stupidity, early breakdown and dependency are evident, for the expression of the more subtle capacities, the capacity for foresight, for generosity, for sociability, depends on having some money for 'Sundries.' One of the most important differences between social dependents, potential or actual, and self-supporting citizens is that social dependents are willing to go without the money for 'Sundries,' and capable men and women recognize the imperative need for the money that will buy those things the term covers."

5. JOHN A. HOBSON, *The State and the Minimum Wage in England. From the Survey, February 6, 1915, P. 503.*

"The most important change in the character and direction of the social reform movement in Great Britain within the last two years has been the emergence of the legal minimum wage as the chief direct object of practical endeavor. Ten years ago it was scouted by most social reformers as a socialistic device of dubious validity, lying entirely outside of the range of actual politics. Today it is favored by prominent leaders, not merely of the labor, but of the liberal party, as a matter of prime urgency; and an influential group of conservative politicians adopt it as a foremost plank in their platform.

"Lloyd George, incomparably the most vigorous personality in our public life, has definitely proposed that a land commission be endowed with statutory powers to fix legal minimum wages for agricultural labor in the country."

6. J. NOBLE STOCKETT, JR. *The Arbitral Determination of Railway Wages. Boston, Houghton Mifflin Co., 1918 (pp. 67, 172-179).*

"The two fundamental principles which may fairly govern the wage determinations of arbitrators are the grant of a living wage to unskilled labor, and the maintenance of the standard of living of all employees. The first of these is the more important, since,

with the upper grades of labor, there is no question of their securing enough to insure a decent standard of living.

* * *

"The maintenance of the standard of living is of utmost importance to society, and for this reason it is imperative that wages should advance in the same proportion as living costs increase. By the cost of living is meant not only the cost of food, but also the costs of rents, clothing, fuel and light, and sundries.

* * *

"The claim of employers that if wages are advanced in the same proportion as the increase in the cost of living they should likewise be decreased in the same proportion as living costs decline should not be allowed. In the past, wage reductions during long continued periods of declining prices have been vigorously opposed by employees, and the result has been a decrease in wages by a somewhat smaller ratio than the decrease in prices. Arbitration boards should endeavor to raise the standard of living of employees whenever possible, and this result can be obtained during periods of declining prices by a refusal to allow decreases in wages equal to the decline in prices, without the likelihood of friction between employers and employees, and without going counter to the normal trend of wages during long periods of declining prices.

* * *

"There is practical agreement nowadays among students of social conditions that no employee should receive compensation below an amount sufficient to secure a normal standard of living. The opinion is current that since the result of the wage contract is dependent upon the relative strength of the two parties, and since the employees are usually the weaker, employers should be limited in the exercise of their superior power by the provision that every wage must fulfill the requirements of a living wage. It is unnecessary to treat here of the reasons for the payment of a living wage. The adverse effects upon society and upon the laborer himself arising from the failure to receive such a wage are patent. Undoubtedly a living wage is a necessity; the real issue is whether it is possible to determine the essentials constituting a normal standard of living, and whether the amount of money required to purchase these essentials can be calculated within reasonably exact limits.

* * *

"Summing up the attitude of American arbitration boards, it may be said that they favor granting a living wage to the lower paid and unskilled employees, with a tendency, however, especially in Canada, to recognize the inability of the road to pay as a consequence of business depression as a proper ground for reducing in amount or altogether refusing advances in wages properly deducible from this principle."

7. L. B. MORE. *Wage-Earners' Budgets*. Henry Holt & Co., New York, 1907 (p. 269.)

"A 'fair living wage' should be large enough not only to cover expenses which Mr. Rowntree calls 'necessary for maintaining merely physical efficiency,' but it should allow for some recreation and a few pleasures, for sickness, short periods of unemployment, and some provision for the future in the form of savings, insurance or membership in benefit societies."

8. C. C. COTTERILL. *A Living Wage a National Necessity*. London, 1912 (p. 46).

"There must be secured for all who are able and willing to work, and for those dependent upon them, adequate means to enable them to lead healthy, vigorous, full, human lives; there must be secured for them what we call a living wage. I am not so foolish as to suppose that the securing of a living wage would solve all the difficult social problems that await solution. But I do state with complete confidence that, if we once solve this problem of a living wage, we shall be well on the way toward the solution of the others that remain to be solved, and especially, for it is perfectly impossible to overestimate the importance of this, that until we have solved this problem of poverty by the securing of a living wage we can make very little progress toward the solution of other kindred problems."

9. DR. FRANK HATCH STREIGHTOFF, *Professor of Economics at Depauw University*. *The Standard of Living*.

"What, then, is the content of the lowest tolerable standard of living? In the first place, there must be food, clothing and shelter sufficient to maintain economic efficiency. * * * If economic efficiency is to be preserved, there must be provision against sickness and unemployment; for unless his strength is maintained during idleness, when he returns to work the individual is unfit for his stint. Moreover, the man's standard must include a family, else, in a generation, production will cease."

"But this view of the purpose of man is far too narrow. Few people would today have the hardihood to deny that man's life should contain the largest possible amounts of wholesome pleasure. 'One of the strongest human wants is the desire for the society of one's fellows' (Bullock). This means that with a normal standard of living the house should contain a room fit for entertainment of company, that the family should have clothes which will enable them to appear in public without shame, and that the routine should include some leisure for polite intercourse. Still if man is to be an end in himself, he must have more than this; he needs some education, books, pictures and wholesome recreation. * * * Modern scientific charity as well as the Christian religion recognizes a very real social value in the home. It is probably this which is in the mind of Prof. John A. Ryan when he writes that the wife should

not be a wage-earner, thus implying that the father should support the family. Besides all these things, a normal standard of living contains provisions for all emergencies, sickness, accident, unemployment and death, and for material advance—savings. Religion, too, should be in the routine.”

10. VALENTINE, ROBERT G. *Work and Pay, a Suggestion for Representative Government in Industry.* (Reprinted from the *Quarterly Journal of Economics*, Vol. XXXI, February, 1917, p. 253.

“How, then, to settle the amount due the president, the office boy, the truck hand? Clearly, the first duty will be to establish a minimum rate below which no worker will be paid, and this minimum must be set on a flexible scale in the light of a thoroughly contemporary knowledge of a wholesome standard of living in the locality—a standard that includes all the elements that make for a progressive citizenship.”

11. PROF. IRVING FISHER of Yale University. *Testimony in Boston Elevated Railroad Arbitration* (1914) in *Giving his Views as to what Constituted a Living Wage.*

“I might read something that is pertinent on this subject, an article called ‘Social Standards for Industry in the National Conference of Charities and Corrections at their Cleveland Meeting in 1912,’ giving the following definition of a living wage:

“‘A living wage for all who devote their time and energy to industrial occupations. The monetary qualification of a living wage varies according to local conditions, but must include enough to secure the elements of a normal standard of living, to provide for education and recreation; to care for immature members of the family; to maintain the family during the period of sickness, and to permit a reasonable saving for old age.’”

12. HENRY R. SEAGER, *Professor of Economics, Columbia University.* *Theory of the Minimum Wage.* *American Labor Legislation Review*, February, 1913.

“To sum up my conclusions: The economic interest of society requires the payment of living wages to all workers, except, possibly, children learning trades and defectives, who must be treated as wards of the State.”

13. CHARLES A. ELLWOOD, *Professor of Sociology, University of Missouri.* *Sociology and Modern Social Problems*, pp. 176, 368.

“A normal family life evidently requires not only proper physical conditions, sufficient income to maintain a decent standard of living, and ethical democratic relations between its members, but above all consideration of the child. (The author in a footnote to his reference to a standard of living calls attention to what was said in a former chapter about the influence of industrial conditions in undermining a normal family life.)

"Ten conditions essential to a normal social life:

* * *

"(9) A minimum standard of life for all, sufficiently high to insure full nourishment, reasonable recreation, proper housing and the other elementary necessities of life."

14. PROF. M. B. HAMMOND of Ohio State University, in the *Quarterly Journal of Economics*.

"After reading carefully all of Mr. Justice Higgins' decisions, and having discussed these questions at great length with him in conversation, I feel warranted in saying that he gives no evidence of bias, and I believe that most economists will agree with me that the principles on which he has based his judgments are fundamentally sound, and that he has with relentless logic argued his way to safe and sane conclusions. He has certainly expressed at greater length and with greater clearness than anyone else the ideals which have animated the Australian people and the Australian lawmakers in placing on the statute books the body of social legislation, which has drawn the eyes of the world to Australia, and which marks the most notable experiment yet made in social democracy."

15. WILLIAM CUNNINGHAM. *Contemporary Review*, Vol. LXV, pp. 16-28.

"The conviction that abundant remuneration and efficient work are correlative is so firmly held by the great mass of intelligent English employers as to give the proposition an axiomatic character. Lancashire cotton manufacturers, for example, rejoice in, and are proud of the high earnings of their work people, and in every town there is a certain spirit of emulation among them in the endeavor, by the provision of good machinery and good material, to place their establishments in the front rank as places where the weekly wages stand highest. This principle that abundant earnings and industrial success go together, has been learned by experience, by observation and by the interchange of idea, which is always going on in every department of trade" (p. 19).

16. *The Case for the National Minimum. Printed for the National Committee for the Prevention of Destitution. London, 1913.*

"The verdict of the economists is equally clear and emphatic. 'Cheap labor' they no longer regard as a blessing, but rather as a curse to an industrial community. Low wages mean low efficiency and low consuming power. The recognized economic advantages of maintaining a high standard wage are:

"1. That it increases the efficiency of the workers by giving them a higher standard of living; and

"2. That by preventing economies in wages it forces the competitive struggle on to a higher plane, the plane of efficiency.

"High wages, by leading to improved machinery and more efficient organization, are in the long run the truest form of economy." (P. 4.)

17. L. T. HOBHOUSE. *The Right to a Living Wage. The Interdenominational Conference of Social Service Unions, Swanwick, 1913.*

"A society in which a large proportion of honest and industrious workers are unable to secure continuous employment at a wage which will maintain a family in a condition compatible with the requirements of physical health is fundamentally an ill-organized society; it has failed to secure a primary condition of healthy social life, and a society which sits down passively under such conditions and lets them alone is not only an ill-organized society, but one which has lost faith in itself or is dead to its responsibilities. Hence it is that the problem of the living wage lies at the foundation of social life." (P. 64.)

18. MARGARET F. BYINGTON. *Homestead: The Households of a Mill Town. The Pittsburgh Survey. Russell Sage Foundation Publication. New York, 1910.*

"As a permanent basis for American life, we must look to a larger budget." (P. 182.)

19. ARTHUR J. TODD, *Professor of Sociology, University of Minnesota. The Scientific Spirit and Social Work.*

"As a corollary to the right of personal freedom men have added the right to a decent income. You find this in the form frequently of a demand for a living wage. Minimum-wage legislation for women and children has already met in part this demand. But there is a growing call for a widening of the concept to include all workers, men as well as women, unorganized as well as organized. * * * The new demand has crystallized pretty definitely into what is called now the 'platform of national minimums'; that is, certain minimum standards of health, wages and other living conditions as they affect citizenship. It is a very fertile concept, and it proves conclusively the real nature of rights. It shows beyond question how these rights arise in localized opinion, are fostered through agitation and are finally crystallized in popular conviction as expressed in constitutional amendments and statutory legislation."

20. HARRY F. WARD, *Professor of Sociology, Boston University. The Living Wage a Religious Necessity.*

"The principle of the living wage was so thoroughly incorporated in the life of the Hebrew community that when Paul writes to Timothy he cites it in illustration of the truth that a good soldier of Jesus Christ must accept his share of suffering. * * * 'The harvest man who labors in the field must be the first to get a share of the crop.' * * * In the face of the clear teaching of the Scripture, the church dare not fail to proclaim the necessity of a living wage. If Christianity is to be expressed in a community life upon the earth, this principle is basic, and the pulpit must cry aloud without ceasing until it is put at the center of our industrial organization. In the face of modern social injustice, the church

must ever uphold the ideal of a community life in which all persons have the means for full development, in order that this ideal may call economist, legislators and industrial leaders to work out the method by which it can be realized.

"A living wage for adult male workers means a wage that will support a family, because the highest welfare of the community demands that all men shall be able to maintain a family, and that the family life shall not be broken down by the enforced labor of the mother and the children. The standard living wage for adult males is a wage which will maintain the average family of five—a man, wife and three children under 14."

F. THE CHURCH.

1. *The Principles of Social Reconstruction: Social Service Committee of the Northern Baptist Convention. From Folder No. 28, Published by the American Baptist Publication Society.*

"(10) The determination of a national minimum provision for a living income."

2. *The Church and Social Reconstruction: Federal Council of the Churches of Christ in America. Second Section of Statement.*

"Wage levels must be high enough to maintain a standard of living worthy of responsible free citizenship in a democracy. As was pointed out in the statement on Social Reconstruction by the National Catholic War Council, a considerable majority of the wage-earners of the United States were not receiving living wages when prices began to rise in 1915. Real wages are also relative to the cost of living and vary with the purchasing power of the dollar. Actual wages, that is, wages reckoned in power to purchase commodities, have been decreasing for several years in spite of wage increases. There is urgent need of provision by industry, under the guidance of the Government, for some regular method of adjustment of wages and salaries to the purchasing power of money.

3. *Pastoral Letter by the Board of Bishops of the Methodist Episcopal Church. From The Christian Advocate. New York. May 22, 1919.*

"We favor an equitable wage for laborers, which shall have the right of way over rent, interest and profits.

4. *Pronouncement by the Administrative Committee of the National Catholic War Council, 1919.*

"Even if the great majority of workers were now in receipt of more than living wages, there are no good reasons why rates of pay should be lowered. After all, a living wage is not necessarily the full measure of justice. All the Catholic authorities on the subject

explicitly declare that this is only the minimum of justice. In a country as rich as ours, there are very few cases in which it is possible to prove that the workers would be getting more than that to which he has a right if he were paid something in excess of this ethical minimum. Why, then, should we assume that this is the normal share of almost the whole laboring population? Since our industrial resources and instrumentalities are sufficient to provide more than a living wage for a very large proportion of the workers, why should we acquiesce in a theory which denies them this measure of the comforts of life? Such a policy is not only of very questionable morality, but is unsound economically. The large demand for goods, which is created and maintained by high rates of wages and high purchasing power by the masses is the surest guarantee of a continuous and general operation of industrial establishments. It is the most effective instrument of prosperity for labor and capital alike. The principal beneficiaries of a general reduction of wages would be the less efficient among the capitalists and the more comfortable sections of the consumers. The wage-earners would lose more in remuneration than they would gain from whatever fall in prices occurred as a direct result of the fall in wages. On grounds both of justice and sound economics, we should give our hearty support to all legitimate efforts made by labor to resist general wage reductions."

5. *A Living Wage.* JOHN A. RYAN. New York, Macmillan, 1920.

"Today the doctrine that the laborer has a moral claim to at least a decent living wage is almost universally accepted by all intelligent and disinterested persons, while the legal minimum wage has found its way into the statute books of countries in three continents. (P. iv.)

Opinion Regarding a Living Wage.

"It is the purpose of this chapter to show that the workingman's right to a decent livelihood is, in the present economic and political organization of society, the right to a living wage. As a preliminary to the formal argument, a brief review will be made of the attitude taken toward the doctrine by important thinkers. As we have already seen, the Fathers of the Church and the medieval theologians believed that every human being has an imperishable right to a livelihood from the common bounty of nature. And the medieval teaching went further. The principle that the laborer should receive *just* wages was virtually contained in the canonist doctrine of just price. The theologians and canonists held that every commodity had a certain fair valuation, or just price, which was independent of the arbitrary and fortuitous valuation resulting from the higgling of the market. (Cf. Brants, pp. 107-116.) The just price in any market being determined by the appraisement of the general public, it was said to be measured by the 'communis aestimatio.' To ascertain the just price of any article, account had to be taken of its general utility, scarcity and cost of production. The last element,

which in the Middle Ages was chiefly represented by labor expenditure, was regarded as the most important. When, therefore, the medieval theologians and canonists taught that a just price should be paid for every commodity, and that its chief determinant was labor cost, they virtually insisted that the laborer should be paid just wages. (Cf. Brants, pp. 107-116.)

"To the searcher for explicit and precise rules for determining what is a fair remuneration for labor the medieval writers are, indeed, disappointing. St. Thomas Aquinas says that, as justice demands that a fair price be paid for a material commodity, so it demands that a fair price should be given for human labor. (*'Summa Theologica,'* Ia. 2ae, q. 144, a. i.) Other writers likewise content themselves with the general declaration that wages should be in accordance with justice. Their failure to be more specific seems to be explained by the industrial conditions of the time. During the greater part of the Middle Ages there was, properly speaking, no such thing as a wage system, for there was no class of laborers, either in town or country, depending solely on employers to whom they sold their labor. (Gibbons, Vol. ii, p. 101; Ashley, Vol. ii, p. 101; Lavasseur, *'Histoire des classes ouvrières avant 1789,'* Vol. i, p. 598.) The master craftsmen in the towns and the men who tilled the soil on their own account received just wages if they received a just price for their products. Even after the rise of a distinct laboring class—that is, men who could never hope to become master craftsmen, or men who spent the greater part of their time in the service of the lords of the domain—the question of just wages was not of supreme importance. In town industries the journeymen were quite commonly fed and lodged by their employers (Levasseur, Vol. i, p. 455, Brants, p. 123; Martin-Sainte-Leon, *'Histoire des corporations des métiers,'* p. 155); the relations between masters and journeymen were akin to those existing between father and sons (Ashley, Vol. ii, p. 103); and between the average earnings of the two classes there was not a great difference (Levasseur, Vol. i, p. 313; Brants, p. 123). Agricultural laborers usually had possession of a piece of ground to the cultivation of which they devoted their leisure time, and from which they obtained part of their sustenance. (Gibbons, p. 111.) These conditions were not, indeed, universal, nor did they always secure for the laborer a reasonable living, but they explain sufficiently the failure of medieval writers to treat specifically the question of just wages.

Later on, when the wage-earning class assumed greater proportions, we find the ethics of their remuneration explicitly discussed by theological writers. Molina, De Lugo and Bonacina, writing about the beginning of the seventeenth century, declare that in general that wage is just which is customary for a given service in a given place. (Molina, *'De Contractibus,'* disp. 506, Nos. 2, 3, 4; De Lugo, *'De Jure et Justitia,'* disp. 29, No. 62; Bonacina, *'De Contractibus,'* disp. 3, q. 7.) The two first mentioned say that a wage insufficient for the subsistence of some laborers will nevertheless be fair when there are many who willingly sell their services for that

amount. We are told that numerous workers do accept this lower wage, either because they have other sources of income, or because they can live more cheaply than fellow-members of their own class. From the context it would seem that both Molina and De Luga assume that the laborer has a right to a living from his toil, and that their chief concern in the passages cited is with cases in which the circumstances are exceptional. (Cf. Vermeersch, 'Questions de Justitia,' pp. 572, 573; Pottier, 'De Jure et Justitia,' pp. 234, 241.) At any rate, they do not discuss the question of a living wage adequately and in all its relations. The only general standard of just remuneration that they lay down is custom. Whether the customary wages of those days complied with the requirements of a living wage, as then understood, is not easily determined. However, since wages remained stable during long periods of time, and since the direct influence of religious and moral teaching on economic life was very considerable—much greater than at present—it may well be that the essentials of a reasonable wage were fairly well realized.

"From the time of the writers just mentioned down to the year 1891 the theological and canonist doctrine on the ethics of wages seems to have undergone no important development. The old phrases about customary wages and just wages are constantly recurring. A curious instance of this unprogressiveness is found in the pages of the canonist, Reiffenstuel, one of the ablest authorities on the legislation of the Church. He maintained that it was wrong for an employer to pay a laborer less than was usual in similar circumstances, but that when the usual wage was paid all obligations of justice were satisfied, even though it did not suffice for a livelihood. ('Jus Canonicum,' Lib. III, Decretal. tit. XVIII, Nos. 108, 114.) According to this interpretation, the 'customary wages' of the medieval theologians and canonists become 'current wages,' and the 'common estimate' of just wages becomes the wages that men actually pay in the strife of competitive bargaining. What was in the minds of the schoolmen a conscious moral judgment is thus converted into an unconscious resultant of men's efforts to buy cheap and sell dear. The author's principle would justify starvation wages if these were common to a whole class.

"In the year 1891 the late Pope Leo XIII formulated the doctrine of a minimum living wage in his celebrated encyclical, 'Rerum Novarum,' better known by the title, 'On the Condition of Labor.' Its most important passages relative to the present matter are the following:

"We now approach a subject of very great importance, and one on which, if extremes are to be avoided, right ideas are absolutely necessary. Wages, we are told, are fixed by free consent, and, therefore, the employer, when he has paid what was agreed upon, has done his part and is not called upon for anything further. The only way, it is said, in which injustice could happen, would be if the master refused to pay the whole of the wages, or the workman would not complete the work undertaken. When this happens the State

should intervene to see that each obtains his own, but not under any other circumstances.

"This mode of reasoning is by no means convincing to a fair-minded man, for there are important considerations which it leaves out of view altogether. To labor is to exert one's self for the sake of procuring what is necessary for the purpose of life, and most of all for self-preservation. 'In the sweat of thy brow thou shalt eat bread.' Therefore, a man's labor has two notes of characters. First of all, it is personal; for the exertion of individual power belongs to the individual who puts it forth, employing his power for the personal profit for which it was given. Secondly, man's labor is necessary; for without the results of labor a man cannot live; and self-conservation is a law of nature which it is wrong to disobey. Now, if we were to consider labor merely in so far as it is personal, doubtless it would be within the workman's right to accept any rate of wages whatever; for in the same way as he is free to work or not, so he is free to accept a small remuneration or none at all. But this is a mere abstract supposition. The labor of the workman is not only his personal attribute, but is necessary; and this makes all the difference. The preservation of life is the bounden duty of each and all, and to fail therein is a crime. It follows that each one has a right to procure what is required in order to live; and the poor can procure it in no other way than by work and wages.

"Let it be granted, then, that as a rule workman and employer should make agreements, and in particular should freely agree as to wages; nevertheless, there is a dictate of nature more imperious and more ancient than any bargain between man and man, that the remuneration must be enough to support the wage-earner in reasonable and frugal comfort. If, through necessity, or fear of a worse evil, the workman accepts harder conditions because an employer or contractor will give him no better, he is the victim of fraud and injustice.'

"Pope Leo XIII was not, indeed, the first Catholic authority to proclaim this principle of a living wage. It had already been, more or less, explicitly laid down and defended by Ketteler in Germany, Vogelsang in Austria, de Pascal in France, Pottier in Belgium, and Manning in England. (Cf. Nitti, "Catholic Socialism," *passim*.) It was the principle of social justice that was clearest and most definite in the consciousness of those numerous groups of Catholic thinkers and agitators who, during the preceding quarter of a century had been seeking a remedy for the industrial ills of modern Europe. It was at least a partial application to existing economic conditions, and institutions of the traditional theological and canonist doctrine of just price. Indeed, it was the activity of this Catholic social movement that, more perhaps than all other influences together, led the late Pontiff to issue the encyclical, 'On the Condition of Labor.' In a conversation with the Swiss social reformer, Gaspard Decurtins, Pope Leo referred to the father of the movement, Archbishop Ketteler, as his 'great forerunner.' Neverthe-

less, it was his encyclical that converted the living-wage doctrine from an implicit into an explicit principle of Catholic ethics.

"Owing to the individualistic tendencies of Protestantism, its many forms, and the nature of its organization, the Protestant teaching on an ethical standard of wages as against the standard of unlimited bargaining, is less pronounced and less uniform than that of the Catholic Church. It is, therefore, much more difficult of adequate presentation in a brief survey. Attention may, however, be called to one or two important facts. No Protestant denomination has ever signified its approval of the principle of unlimited bargaining, either formally or through the expression of its leading representatives. On the contrary, numerous and able representatives of the leading denominations have frequently protested against the doctrine and insisted that to take advantage under the guise of a free contract of the necessities of the laborer is to violate the principles of Christianity. Chief among them are: Kingsley, Maurice, Hughes and Headlam in England; Pastors Stocker and Todt in Germany; Gide and Waddington in France, and Bishop Potter and Dr. Gladden in the United States. The first three groups of writers founded or identified themselves with organizations for Christian social reform, which have had a very large influence. (Cf. Nitti, *op cit.*, pp 85-99, and Rae, 'Contemporary Socialism,' pp 220-242.)

"In the program of social reconstruction, issued by the Federal Council of the Churches of Christ in America in 1919, the demand is made for a living wage enforced by the State, and it is declared that 'this living wage should be made the first charge upon industry, before dividends are considered.'

"Prominent among those who defend the principle of a minimum wage on social grounds are Sidney and Beatrice Webb, and their line of argument is typical of that large class of writers who habitually regard the rights and welfare of the individual from the viewpoint of society. They maintain that the State ought to enforce a national minimum of wages which would provide the laborer with 'the food, clothing and shelter physiologically necessary, according to national habit and custom, to prevent bodily deterioration.' By this means the community would rid itself of the industrial evil called 'parasitism,' that is, the existence of trades or business in which the wages paid are too low to maintain the workers in industrial efficiency, and to enable them to reproduce and rear a sufficient number to take their places. These industries take from the nation capital stock of character, intelligence and energy more than they give back, and, therefore, steadily degrade the character and industrial efficiency of the whole people; hence, as a matter of simple protection to the national life, both present and future, this practice ought to be prohibited, and all workers ought to be given, through appropriate legal measures, sufficient remuneration to maintain their productive power.

"Upon this doctrine the writers who we are now considering base the laborers' right to a living wage. Their argument runs thus:

The working man has a right to a just price for his labor; the just valuation of any kind of labor is that formed by the common estimate or social judgment of what is reasonable. Now, the social judgment declares that a man's wages ought never to be less than the equivalent of a decent livelihood; consequently, the just price of labor is never less than a living wage.

"The defenders of this view are careful to point out that the social estimate to which they refer is not the economic social estimate. The latter is determined solely by the movement of demand and supply; is produced unconsciously by the 'biggling of the market,' and is always expressed in actual market prices. The ethical estimate is a deliberate pronouncement of the social judgment, made independently of the price-determining action of competition. It declares the prices and wages that ought to exist, not those that do exist. In this sense the social estimate, we are told, maintains that when men are paid less than a living wage they are victims of injustice."

6. *Conclusions Reached by a Group of 20 British Quaker Employers. From The Survey, November 23, 1918.*

"The principle is laid down that a minimum or basic wage should be established in every industry and that there should be a secondary wage depending upon the capacity of the worker."

7. HARRY F. WARD, *Professor of Christian Ethics, Union Theological Seminary, New York City. The New Social Order. Macmillan, 1919, p. 192.*

"The proposal for the national provision of a universal minimum is the family principle of equality of maintenance for every member of the group carried over into national life.

* * *

"If the family is unable to provide the minimum for its members its life breaks down.

* * *

"If the nation is unable to provide the means for maintenance and development its life breaks down."

* * *

8. *Industrial Conference, Interchurch World Movement, New York City, October, 1919.*

"(1) This conference was called by the Industrial Relations Department of the Inter-Church World Movement of North America on the recommendation of the commission on Social Service of the Federal Council of Churches of Christ in America, and the Secretaries of Social Service Commissions of several Christian bodies and organizations of the country. The delegates were nominated by the above-named agencies. The purpose of these findings is to point out the moral principles involved in all industrial relations and to

suggest some methods applicable to the present situation. No attempt is made to deal adequately with either the specific or general industrial problems, but to indicate the Christian bases upon which these problems can be solved.

"(2) The basic ethical principles of individual and social life may be briefly summarized as follows: (a) The inestimable value of the individual and the right of the individual to the fullest development of personality. (b) Service the supreme motive of human activity and the only true test of human valuation and achievement. (c) The inescapable responsibility of all individuals for complete devotion to the welfare of the whole social order and to the aim of establishing a genuine human brotherhood.

"(3) These principles persistently and progressively applied will inevitably solve our industrial and social problems. The present industrial system is on trial."

9. COL. DAVID CARNEGIE, F.R.S., *Edinburgh, former Member Imperial Munitions Board, Canada. Can Church and Industry Unite?* Marshall Brothers, London, 1920, pp. 92-94.

"Everyone knows that there is something wrong in society and industry. There is no peace. Business, politics and Church are all disturbed. The war is blamed for the unrest. It is said that 45,000,000 people in Britain, and hundreds of millions throughout the world cannot be shaken up for four years without disturbing the peace. This is admitted, but we deceive ourselves if we think that the war is the cause of the industrial unrest. The war has aggravated the situation, but is not responsible for it. The cause lies a long way back. The war has forced the problem of industry upon the Church. Chaplains and other preachers have had a baptism of light on the battlefield from men who never darkened a church door. They believe they have discovered why men discount organized religion. The Church has become aroused; she acknowledges that she has been negligent, and there is need for repentance and a new birth. The Church sees the people of the world at loggerheads, and she is now standing by wringing her hands and lamenting her past indifference, powerless to help.

"The Church now recognizes, when too late, that the workers have been undervalued, underpaid, underhoused and overworked. She sees that labor has now the power to secure, without the Church's help, what it considers fair in pay, in hours and conditions of work. The Church sees a conflict proceeding between labor and capital and the Government in which it appears that labor can dictate its own terms. The Church sees, further, the possibility of great national loss, if a party or class government with ignorance and power become autocratic, as in Russia today.

"The Church believes it knows the rules of the game in industry and in the disputes arising therefrom. She is anxious to tell them to the contending parties. Labor says it ought to have done that years ago when the employers had the upper hand. The Church

admits that her attitude to the economic and social problems has never been properly defined, and that there has been a want of faith in her own principles and in the principles of Christ's teachings."

G. JOINT AGREEMENTS OF CAPITAL AND LABOR.

1. *Report of the War Labor Conference Board, Composed of Representatives of National Industrial Conference Board, American Federation of Labor and HON. WM. H. TAFT and FRANK P. WAHL, Representing the Public, to the Secretary of Labor. March 29, 1918. Accepted by the Secretary of Labor and the President, and Proclaimed as the Constitution of the National War Labor Board. The Living Wage.*

"1. The right of all workers, including common laborers, to a living wage is hereby declared.

"2. In fixing wages, minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort."

2. *Resolution Adopted by National War Labor Board, July 31, 1918.*

"Resolved, That the National War Labor Board deems it an appropriate time to invite the attention of employers and workers alike to the wisdom of composing their differences in accord with the principles governing the National War Labor Board, which were approved and promulgated by the President in his proclamation of April 8, 1918;

"That this war is not only a war of arms, but also a war of workshops; a competition in the quantitative production and distribution of munitions and war supplies, a contest in industrial resourcefulness and energy;

"That the period of the war is not a normal period of industrial expansion from which the employer should expect unusual profits or the employees abnormal wages; that it is an interregnum in which industry is pursued only for common cause and common ends;

"That capital should have only such reasonable returns as will assure its use for the world's and Nation's cause, while the physical well-being of labor and its physical and mental effectiveness in a comfort reasonable in view of the exigencies of the war should likewise be assured;

"That this board should be careful in its conclusions not to make orders in this interregnum, based on approved views of progress in normal times, which, under war conditions, might seriously impair the present economic structure of our country;

"That the declaration of our principles as to the living wage and an established minimum should be construed in the light of these considerations;

"That for the present the board or its sections should consider and decide each case involving these principles on its particular facts and reserve any definite rule of decision until its judgments have been sufficiently numerous and their operation sufficiently clear to make generalization safe."

3. *Cardinal Points of a Labor Policy Agreed Upon by International Joint Conference Council, Commercial and Periodical Branches, Printing Industry, 1920.*

"First—That the industry frankly recognizes the cost of living, as compared to 1914, as the basic factor in wage adjustments,

"Regardless of the deliberately untruthful propaganda which has been so widely circulated during the past four years, the facts are that the wages of hundreds of thousands of workers have not been increased sufficiently to meet the increased cost of living. The inevitable result has been that the pre-war standards of living of these workers have been reduced.

"The Joint Conference Council, by the adoption of this principle, meets this issue squarely and decisively. Since reduced standards of living have been the basic factor in creating industrial unrest, the basic factor in removing industrial unrest is the restoration of at least pre-war standards.

"The members of the Joint Conference Council have no thought of establishing a fixed standard of living for any workers, nor have they arbitrarily decided that all of the wage scale of 1914 were equitable. Manifestly some of them were not.

"Second. *The industry to pay at least a reasonable living wage; scales below this is to be adjusted in frank recognition of the basic principle involved.*

"The second cardinal point meets another issue squarely and decisively. In some jurisdictions the industry did not pay a reasonable living wage to some workers in 1914. Therefore, in such instances, the application of the first cardinal principle would not provide a reasonable living wage in 1920. It is the determination of the Joint Conference Council to give thorough consideration to the wage scales of 1914, and to find a way to correct these obviously inequitable conditions if it is possible to do so."

4. *Agreement between Grand Trunk Railway Co. and Telegraphers. Annual Report, Department of Labor, Canada, Appendix, p. 359.*

"There are many considerations entering into the question. In our view, there is the right of the men to receive a living wage, and that right is paramount."

H. OPINIONS OF EMPLOYERS

1. *Statement of Principles Which Should Govern the Employment Relation Submitted by Employer Group. President's First National Industrial Conference, October 10, 1919, p. 253.*

* * * "The wage should be so adjusted as to promote the maximum incentive consistent with health and well-being and the full exercise of individual skill and effort. Moreover, the business in each establishment and generally in industry should be so conducted that the worker should receive a wage sufficient to maintain him and his family at a standard of living that should be satisfactory to a right-minded man in view of the prevailing cost of living, which should fairly recognize the quantity and quality of his productive effort and the value and length of his service, and reflect a participation on his part in the prosperity of the enterprise to which he is devoting his energy." * * *

2. *United States Chamber of Commerce. Principles of Industrial Relations Adopted by United States Chamber of Commerce. From Monthly Labor Review of the United States Bureau of Labor Statistics, August 1919, p. 77.*

"(a) Wages should be adjusted with due regard to the purchasing power of the wage and to the right of every man to an opportunity to earn a living at fair wages, to reasonable hours of work and working conditions, to a decent home and to the enjoyment of proper social conditions.

"(b) The wage of labor must come out of the product of industry and must be earned and measured by its contribution thereto. In order that the worker, in his own and the general interest, may develop his full productive capacity, and may thereby earn at least a wage sufficient to sustain him upon a proper standard of living, it is the duty of management to co-operate with him to secure continuous employment suited to his abilities, to furnish incentive and opportunity for improvement, to provide proper safeguards for his health and safety and to encourage him in all practicable and reasonable ways to increase the value of his productive effort."

3. *The Living Wage—What is It? By J. A. NORTON, Auditor of Subsidiary Companies, The Firestone Tire & Rubber Co., in Industrial Management, September, 1919, p. 212.*

"The thoughts we have tried to bring out are:

"1. That every employer should pay his employees a living wage. Consideration should be given to the general living conditions, geographical location, surroundings, climate, etc.

"2. That this living wage must be consistent with the work to be performed, but always a mere existence.

"3. That every employee will have explained to him how, by making the effort, he can earn more money.

"Allow him every possible advantage by suggesting and creating educational classes, night schools, and encouraging correspondence courses and the reading of good books and magazines, which should be furnished by the employer in reading-rooms, libraries, clubs, etc.

"4. That the employer desires efficiency in his men. The more they earn, the more profitable they are to him, for the highly efficient employee is the most economical man in the world, irrespective of the working bases.

* * *

"Some of the advantages the living wage idea would give us, as we see them, are:

"1. A more co-operative feeling between employer and employee.

"2. A more intelligent working class and nation.

"3. The unnecessary need of unions to protect the interests of its members.

"4. The incentive for every man to do his best, be master of himself and his own environment.

"5. More capital, more and better homes, improved living conditions, with less immorality and crime.

"6. A greatly reduced labor turnover.

"7. The natural death of the Bolsheviki.

"8. The alternative of a living wage, or independency, which is the problem and possibility alike of every workingman, who knows that the choice is up to him individually, and him alone."

4. FREDERICK P. FISH, *Chairman of the National Industrial Conference Board, Employer Representative at President's First Industrial Conference. Former President of the American Bell Telephone Co. and of the American Telephone & Telegraph Co. Address at Dinner, Economic Club, New York, December 10, 1919.*

* * *

"* * * and also that any industry that is worth providing, that is worth perpetuating, ought to be able to pay everyone that enters into its employ a decent wage that will support him in a fair degree of comfort that is satisfactory to a right-minded man, and that will give him a chance for relaxation, a chance for saving something for old age or for accident."

5. MARK L. REQUA, *Formerly General Director of the Oil Division, United States Fuel Administration. Address Before Conference of the Chambers of Commerce in the United States, Atlantic City, December, 1918.*

"If I were to define the 'spirit of the times' as applied to the management of any of our great corporations, I should say that it meant a broad humanitarian view of social problems, a sympathetic interest in the welfare and aspirations of the masses, a constant and intelligent effort to abolish the poverty line by helpful suggestion and wise counsel, a realization that the old order passeth, that labor

is entitled to a just wage, rational hours, decent working conditions, and that capital is entitled to a profit commensurate with the hazard of the particular industry in question, and that both must work in harmony if either is to survive."

I. ATTITUDE OF ORGANIZED LABOR.

1. JOHN MITCHELL. *Organized Labor*. New York, 1910. Pp. 116, 117.

"The American standard of living should mean, to the ordinary unskilled workman with an average family, a comfortable house of at least six rooms. It should mean a bathroom, good sanitary plumbing, a parlor, dining-room, kitchen and sufficient sleeping room that decency may be preserved and a reasonable degree of comfort maintained. The American standard of living should mean to the unskilled workman carpets, pictures, books and furniture with which to make home bright, comfortable and attractive for himself and his family; an ample supply of clothing suitable for winter and summer; and, above all, a sufficient quantity of good, wholesome, nourishing food at all times of the year. The American standard of living, moreover, should mean to the unskilled workman that children be kept in school until they have attained to the age of 16, at least, and that he be enabled to lay by sufficient to maintain himself and his family in times of illness, or at the close of his industrial life, when age and weakness render further work impossible, and to make provision for his family against his premature death from accident or otherwise."

2. *Railroad Labor Organizations and the Living Wage.*

(*Letter of the Joint Committee of the recognized railroad labor organizations to the Director-General of Railroads, February 9, 1920.*)

"Washington, D. C., February 9, 1920.

"Mr. Walker D. Hines, Director-General of Railroads, Washington, D. C.

"Dear Sir:

"In response to your telegram of January 23, * * * may we ask that you promptly advise if you will join us in the following recommendations to the President:

"(1) That railroad wages be promptly adjusted by the President (a) so as to equal the wages paid in other industries where similar or analogous service is rendered; (b) to meet the increased cost of living; (c) wherever the application of the two foregoing principles does not yield an adequate wage, to establish an equitable and living minimum wage based upon American standard of living, with proper differentials, having regard for skill, hazard and responsibility. (By the term "equitable and living minimum wage" we do not mean a mere subsistence wage, but a minimum wage sufficient to maintain a railroad man's average family on a standard of health and reasonable comfort and in addition enable him to set aside a sufficient amount for old age and disability.) And (d) all

of the above adjustments by the President to be effective as of May 1, 1919, to those employees in service on that date and to those who entered since that date and remain in railroad service until February 29, 1920.'

3 *Combined Request of All Railroad Brotherhoods and Labor Organizations before United States Railway Wage Board, May, 1920.*

"Reduced to its simplest terms and form, our combined requests for an increase in rates of pay may be stated as follows:

- "1. A minimum living wage is requested for unskilled labor.
- "2. The establishment of differentials above the living wage rate for unskilled labor, corresponding to the relative degree of skill, hazard and responsibility.

"If the board will accept this just and equitable principle of wage adjustment, as we hope they will, immediate financial relief may be granted to us. To make this practically possible within several weeks, we respectfully request that your honorable body adopt the following policy:

- "1. Determine and award a living wage to unskilled workers.
- "2. Decide and announce the principle by which differentials above the minimum living wage rates are to be established for skill responsibility, experience, training and hazard.

"Such a decision on the part of your honorable body would place the great army of railroad workers upon the basis of a decent American standard of living; would provide special remuneration for skill, hazard and responsibility; and would thus guarantee an equitable participation of all classes of employees in the results of their labors. Existing strife and discontent between railway employees and management under these conditions would be immediately reduced and a permanent foundation would be laid for working relations on a peaceable basis. The highest interests of our country and the best interests of the railroad companies themselves would also be subserved by such action by the board as we request. A sure basis would be laid for railway employees both now and in the future to develop all the elements of a sound citizenship in our self-governing republic. Finally, from the standpoint of both the public and the railroads, the productive efficiency of all classes of railway workers would be increased, and better, as well as more efficient and safe service, at lower costs would be secured."

4. *Statement of Principles presented by Labor Group, National Industrial Conference, Washington, D. C., October, 1919.*

"The right of all wage-earners, skilled and unskilled, to a living wage is hereby declared, which minimum wage shall insure the workers and their families to live in health and comfort in accord with the concepts and standards of American life."

5. *Statement of Principles by Labor Conference, Washington, D. C., December 13, 1919.*

"There is a widespread belief that wages should be fixed on a cost-

of-living basis. This idea is pernicious and intolerable. It means putting progress in chains and liberty in fetters. It means fixing a standard of living and a standard of life and liberty which must remain fixed. America's workers can not accept that proposition.

"They demand a progressively advancing standard of life. They have an abiding faith in a better future for all mankind. They discard and denounce a system of fixing wages solely on the basis of family budgets and bread bills. Workers are entitled not only to a living, but modern society must provide more than what is understood by the term, "a living." It must concede to all workers a fairer reward for their contribution to society, a contribution without which a progressing civilization is impossible."

6. *Reconstruction Program of the American Federation of Labor.*

"The American standard of life must be maintained and improved. The value of wages is determined by the purchasing power of the dollar. There is no such thing as good wages when the cost of living in decency and comfort equals or exceeds the wages received. There must be no reduction in wages; in many instances wages must be increased.

"The workers of the nation demand a living wage for all wage-earners, skilled or unskilled—a wage which will enable the worker and his family to live in health and comfort, provide a competence for illness and old age, and afford to all the opportunity of cultivating the best that is within mankind."

7. *PRESIDENT GOMPERS of the American Federationist of April, 1898, defined a living wage as:*

"A wage which, when expended in the most economical manner, shall be sufficient to maintain an average sized family in a manner consistent with whatever the contemporary local civilization recognizes as indispensable to physical and mental health, or as required by the rational self-respect of human beings."

8. *HUGH FRAYNE, Labor Representative, War Industries Board. (Academy of Political and Social Science, Philadelphia, December, 1917.)*

"I will suggest a few of our problems: One is that of the employer who is seeking to take advantage of his labor force. The man who has been unfair, who has exploited labor * * * that same man wants to get the Government to join with him in his idea of solving the labor problem. *I find in almost every instance that he has made no attempt to meet present-day conditions, that his employees are compelled to exist upon the same wage as in pre-war times. When you expect labor, whether organized or unorganized, to get along with a dollar that is now worth but forty cents, you are expecting the impossible. The time, in my judgment, has come when the man who is unwilling to pay a living wage can no longer masquerade under the guise of patriotism and expect to be sustained in that position*

by the Government of the United States. * * * The war is helping us realize that the one great thing in the world is humanity, and that unless it is recognized and protected and nurtured everything else counts for nothing."

9. HENRY IRWIN, member appointed on conciliation board in behalf of employees in dispute between the Canadian Pacific Railway Company and its maintenance-of-way employees. *Labour Gazette of Canada, February, 1914, p. 912.*

"Other countries have adopted the principle of legislating a minimum wage to every man; conciliation should adopt the same principle of a minimum wage, the necessary amount to live on.

* * *

"The condition of the labour market has nothing to do in my opinion with men who are not receiving adequate rates to live on.

10. E. J. MANION, *President Order of Railroad Telegraphers, Before United States Railway Wage Board, May, 1920.*

"Briefly stated, the Board would be justified in making its award for telegraphers and other classes of railway employees on the principles of a living wage for the following reasons:

- "1. Because it is right.
- "2. Because it has the sanction of organized society.
- "3. Because of enlightened self-interest—the railroads would find that it would pay, because it would bring about greater co-operation and greater production from their working forces.
- "4. Because of public policy, because it would do more than anything else to produce sound citizenship in our self-governing republic."

J. POLITICAL PARTY PLATFORM.

1. *Republican Party Platform, 1920.*

"The standard of living and the standard of citizenship of a nation are its most precious possessions, and the preservation and elevation of those standards is the first duty of the Government."

2. *Democratic Party Platform, 1916.*

"We hold that the life, health and strength of the men, women and children of the nation are its greatest asset, and that in the conservation of these the Federal Government, wherever it acts as the employer of labor should, both on its own account and as an example, put into effect the following principles of just employment:

- "1. A living wage for all employees."

3. *Socialist Party Platform, 1916.*

"The conservation of human resources, particularly of the lives and well-being of the workers and their families.

- "* * * (7) By establishing minimum wage scales.









**BEFORE THE UNITED STATES ANTHRACITE
COAL COMMISSION**

EMPLOYES EXHIBIT NUMBER_____

**THE SANCTION FOR
THE EIGHT-HOUR DAY**

Presented by
W. JETT LAUCK

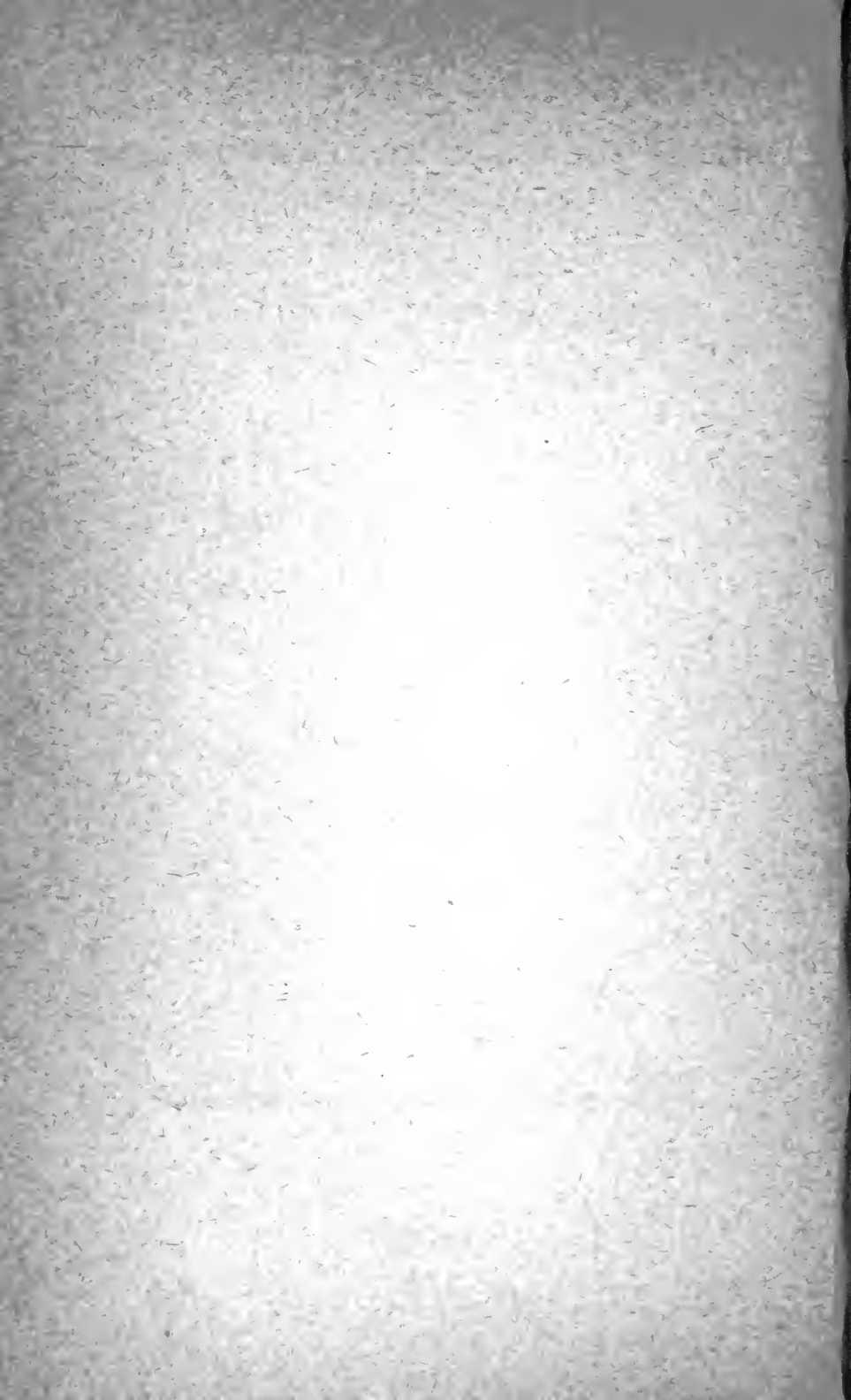
On behalf of
John L. Lewis, President
Philip Murray, Vice-President
F. P. Hanaway, International Representative
Percy Tetlow, Statistician

John Dempsey
Thomas Kennedy
Chris. J. Golden } Committee Representing
Districts 1, 7 and 9

Of the
United Mine Workers of America

WASHINGTON
1920





**BEFORE THE UNITED STATES ANTHRACITE
COAL COMMISSION**

EMPLOYES EXHIBIT NUMBER 15

**THE SANCTION FOR
THE EIGHT-HOUR DAY**

Presented by
W. JETT LAUCK

On behalf of

United Mine Workers of America

WASHINGTON

1920

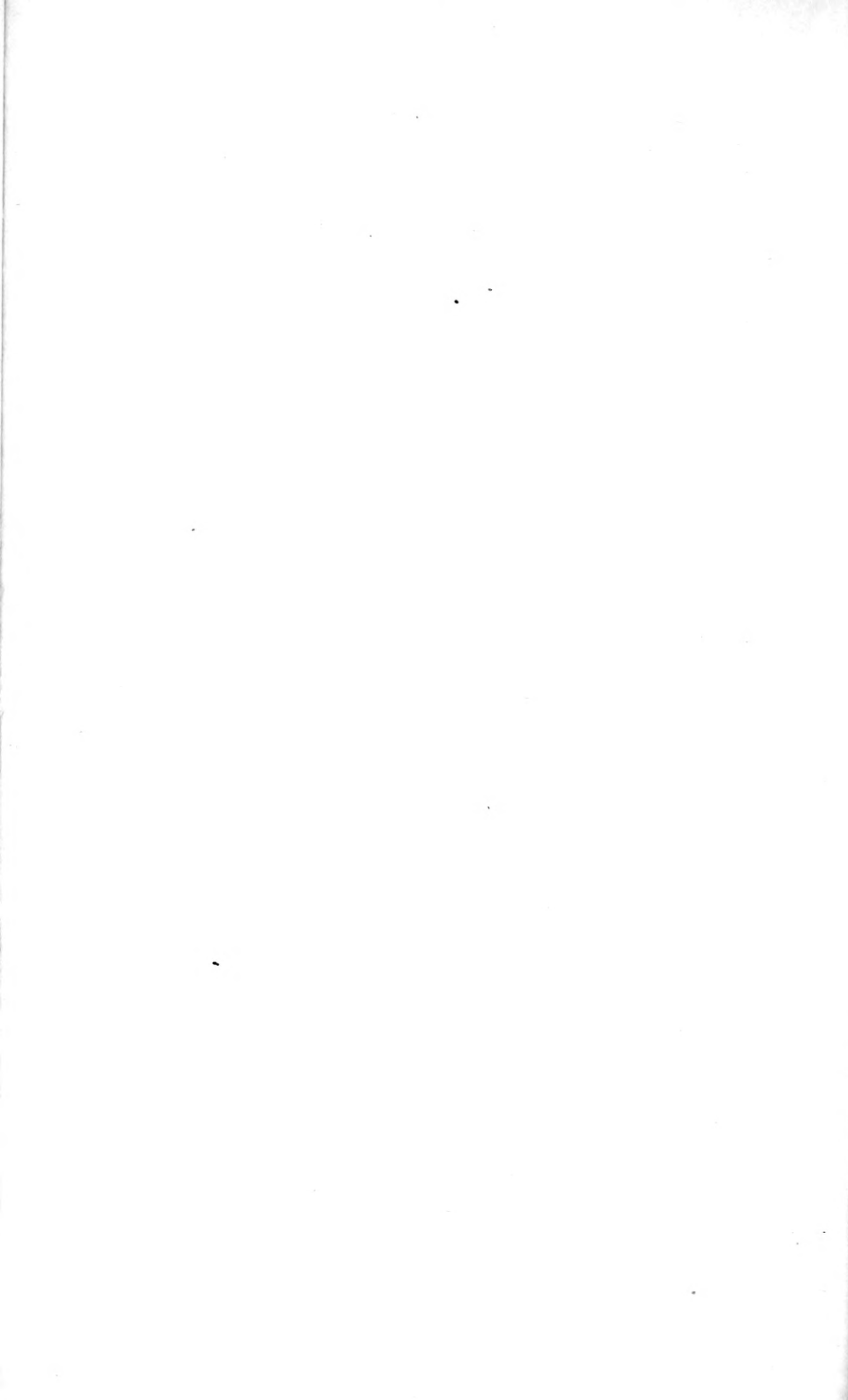


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INTRODUCTION.

The principle of a shorter working day has been so thoroughly established, and experience with an eight-hour day is now so general, that the facts are fairly familiar to every tribunal dealing with questions affecting the welfare of labor and the profitableness of industry. The purpose of the present exhibit, therefore, is to present in as concise form as possible some of the most authoritative facts, opinions and decisions on certain phases of the question for the purpose of making them immediately available for consideration by the Commission.

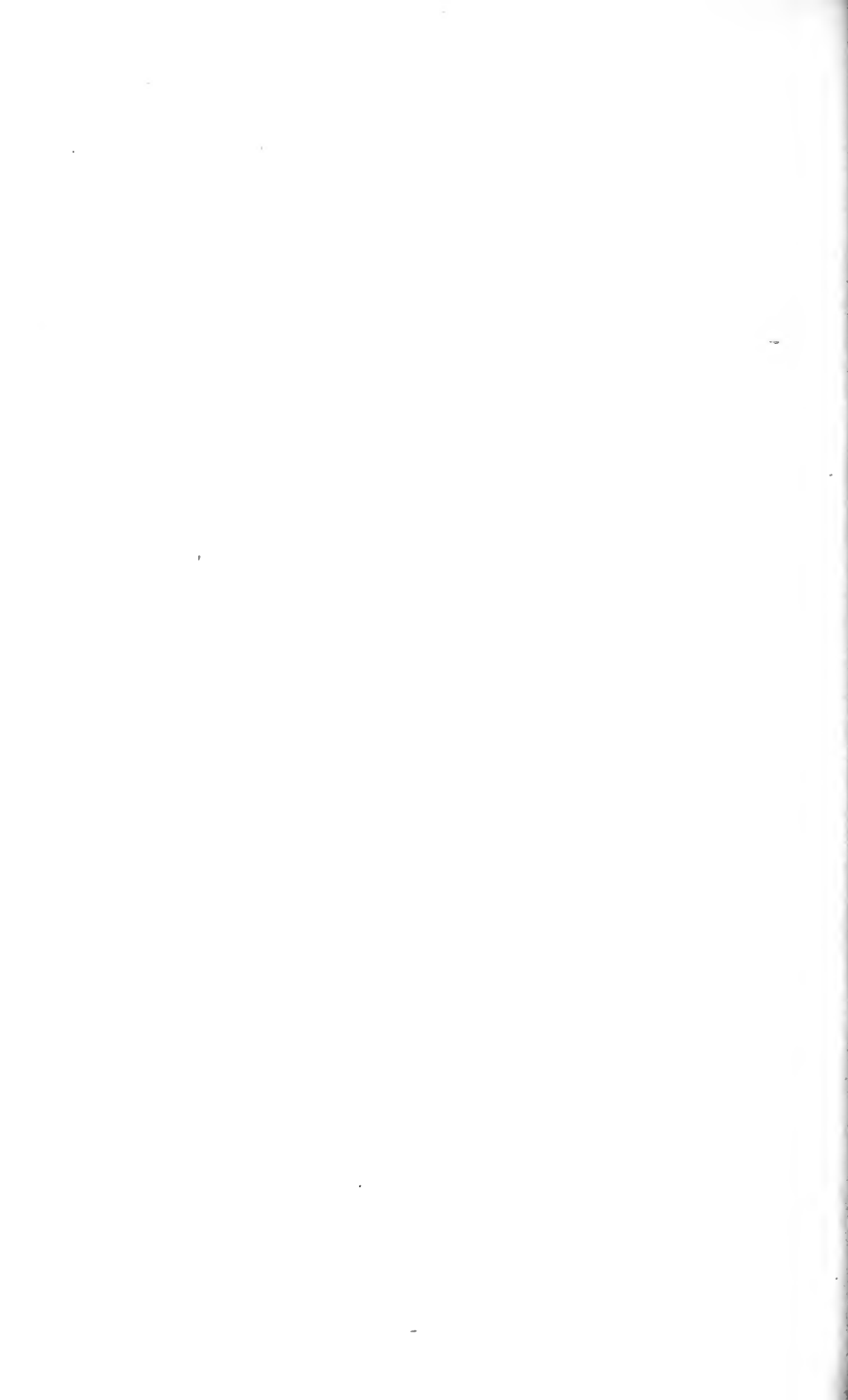
Accordingly, certain facts have been summarized relating to the unmistakable movement toward the eight-hour day in American industry and to the status of American legislation on this question.

Since it is thoroughly recognized that the employer of labor must take into account the profitableness of various lengths of working days, a brief review is presented of the experience of a number of plants with the eight-hour day from the point of view of output. The results of a recent important study by the United States Public Health Service are also given, and the British experience with the long and the short working day is presented.

The profitableness of a working day of a given length, however, is to be evaluated not only in its immediate results upon output, but also in its effects upon the sustained efficiency of the worker. The question of the worker's health, therefore, of necessity enters into consideration, and a brief series of statements from authoritative sources on the physiologic principles involved is presented.

The question has a much broader and even more important aspect, moreover. The length of the working day bears an important relation to certain social conditions, and the eight-hour day possesses a significance of community and national importance for the reason that the moral, mental and social activities of the worker are affected by the degree of fatigue which his work entails and by the opportunity that is afforded him for self-improvement and civic interest outside of working hours. The nature of some of the more important phases of this question is suggested in the views of some of the more important writings by men of recognized eminence.

It has been impossible, even were it desirable, to present all of



I. TREND TOWARD AN EIGHT-HOUR DAY IN THE UNITED STATES AND FOREIGN COUNTRIES.

1. THE MOVEMENT FOR A SHORTER WORKING DAY DURING THE WAR.

During the war period previous movements for shorter hours were continued and were greatly accelerated by the fact that Government contracts required the eight-hour day. The eight-hour movement gained headway before the United States entered the war. As an instance of this fact may be cited the movement for the reduction of hours in the machine trades, which began late in 1915 and continued in 1916. Before our entry into the war railroad employees secured the so-called basic eight-hour day and the anthracite-coal agreement for an eight-hour day was also signed.

Industries which as a whole went on an eight-hour day, with additional pay for overtime, from January, 1915, to June, 1918, inclusive, are contained in the following tabulation. As this table was derived by the United States Bureau of Labor Statistics largely from newspapers and trade journals, it is not complete, nor does it contain industries in which numbers of wage-earners secured a reduction in hours from time to time as a result of sporadic agreements affecting only small numbers in certain localities:

SUMMARY OF REPORTS RECEIVED BY UNITED STATES BUREAU OF LABOR STATISTICS, SHOWING REDUCTION OF THE WORKING DAY TO EIGHT HOURS, 1915-1918.¹

	1915.	1916.	1917.	1918. January to June.	Total.
Number of reports.....	121	210	369	181	881
Number of establishments affected.....	224	3,027	534	455	4,240
Number of employees affected	171,978	342,138	603,795	330,621	1,448,532

¹ Monthly Labor Review, September, 1918, p. 191.

In following this movement, it may be noted, it has not always been possible to distinguish in the reports and sources of information the eight-hour day as representing an actual working day and the eight-hour day which is made the basis of wage compensation with extra pay for work beyond eight hours. However, while the movement has not always signified a reduction in hours of work for the wage-earner, it has at least signalized the acceptance of the principle of the shorter work day.

2. EIGHT-HOUR LAWS IN THE UNITED STATES.

The legislative enactments of an eight-hour day properly may be said to reflect public opinion on the question. In order to present these enactments briefly, the following summary prepared by the Women's Bureau of the United States Department of Labor (Bulletin No. 5, October 15, 1919) is reproduced:

(a) *Laws Establishing a Basic Eight-Hour Day.*

ALL OCCUPATIONS.

Five States, California, Connecticut, Missouri, New York and Pennsylvania, have laws stating that eight hours shall constitute a day's work unless otherwise agreed. Although work above eight hours in any one day is to be paid extra compensation, it is not penalized by requiring rates of time and a half or double time.

The Federal Government has a far more definite law that provides that persons employed on contracts for the United States shall be paid on the basis of eight hours constituting a day's work, with time and a half for overtime.

SPECIFIED OCCUPATIONS.

Five other States, Illinois, Indiana, Montana, Ohio, Wisconsin, and the Federal Government have laws providing that eight hours shall be a day's work in a limited number of occupations. Illinois and Indiana cover only manual labor; Montana, labor on public highways; Ohio, work in manufacturing, mechanical or mining business; Wisconsin, work in manufacturing or mechanical business; United States, letter carriers.

VALUE OF LAWS.

These laws show legislative recognition of 8 hours as a fair maximum day's work. There does not seem to be any underlying principle, other than this recognition, behind these laws. They do not aim to limit strictly hours in industries usually recognized as hazardous, nor, with the exception of Montana, do they attempt to limit hours and wages of State employees. On the contrary, all the State laws expressly provide that the act is not to prevent contracts or understandings that a longer period shall constitute a day's work.

(b) *Laws Establishing an 8-Hour Day for All Workers in Specified Occupations.*

The largest group of laws limiting the hours of work to eight in any one day cover work done either directly or indirectly for the State.

WORK ON PUBLIC WORKS.

Eighteen States, California, Idaho, Kansas, Kentucky, Maryland,¹ Missouri, Montana, Nevada, New Jersey, New Mexico, Ohio,

Oklahoma, Pennsylvania, Texas, Utah, Washington, West Virginia, Wyoming: three Territories, Alaska, Hawaii, Porto Rico and the Federal Government have laws definitely limiting the hours of labor on public works to 8 in any one day. In addition to this, one State, Ohio, limits the weekly hours to 48, and one Territory, Hawaii, limits the hours of labor on Saturday to 5.

MANUAL LABOR ON WORK DONE FOR THE STATE.

Eight States, Arizona, Colorado, Idaho, Kansas, Massachusetts, Minnesota, New York, Oregon, and the Federal Government limit the hours of labor for all manual workers employed on State work to 8 in any one day. Moreover, two of these States, Colorado and Massachusetts, limit the weekly hours of such labor to 48.

WORK DONE ON CONTRACTS TO FURNISH THE STATE WITH MATERIAL.

Nine States, Idaho, Kansas, Montana, New Jersey, New Mexico, Oklahoma, Oregon, Texas, Washington, and the Federal Government have laws providing that all persons working on contracts for material for the State shall be allowed to work only 8 hours in any one day. Oregon also limits the weekly hours to 48.

WORK DONE FOR THE STATE.

Eight States, Arizona, Idaho, Kansas, Montana, New Mexico, Oklahoma, Utah, Washington, and two Territories, Hawaii and Porto Rico, have laws limiting the daily hours of labor to 8 in any one day, so broad in scope as to seem to cover all State employees. In six of these States, Arizona, Idaho, Montana, New Mexico, Oklahoma, Utah, this provision forms part of the constitution of the State. In Hawaii the hours of labor are limited further by providing for a five-hour day on Saturday.

WORK DONE IN STATE INSTITUTIONS.

Four States, Connecticut, Montana, Oklahoma, Utah, have special statutes establishing an 8-hour day for various classes of employees of State institutions. These laws show great diversity in the classes included. Utah, for example, covers all employees of penal institutions; the other three States specify certain occupations such as firemen, janitor, etc., in all State institutions. In two other States, Idaho and Oregon, where employees of institutions would seem to be covered by the general law for State employees, they are expressly excepted. Idaho excepts agricultural and domestic labor in State institutions, and Oregon excepts "any employee of any State institution," and then excepts the penitentiary from this exception.

WORK DONE ON PUBLIC PRINTING.

One State, Massachusetts, and the Federal Government have laws limiting the hours of employment of all persons working on public printing to 8 in any one day. In the case of Massachusetts this means that all contracts are let with this provision in the contract, and with further stipulation that 4 hours shall constitute a day's work on Saturday unless the supervisor of State printing requires

¹ Applies only to the City of Baltimore.

a full day of 8 hours. The Federal law applies to the Government Printing Office. It directs the Public Printer to "rigidly enforce the 8-hour law" in all departments under his charge.

Outside of these acts regulating work done either directly or indirectly for the State, the largest group of eight-hour laws covers certain occupations considered especially hazardous.

WORK IN MINES, TUNNELS AND QUARRIES.

Thirteen States—Arizona, California, Colorado, Idaho, Kansas, Missouri, Montana, Nevada, Oklahoma, Oregon, Utah, Washington, Wyoming and one Territory, Alaska—limit the hours of work in mines, quarries, etc., to eight in any one day. The actual statutes differ very greatly. The Kansas law covers only lead and zinc mines; at the other extreme, the Arizona law specifies "all persons employed, occupied or engaged in work or labor of any kind or nature, in underground mines, underground workings, open-cut workings or open-pit workings, in search for or in the extraction of minerals whether base or precious, or who are engaged in such underground mines, underground workings, open-cut workings or open-pit workings, for other purposes or who are employed, engaged or occupied in other underground workings of any kind or nature, open-cut workings or open-pit workings, for the purpose of tunneling, making excavations or to accomplish any other purpose or design."

WORK IN SMELTERS.

Nine States—Arizona, California, Colorado, Idaho, Missouri, Montana, Nevada, Utah, Wyoming and one Territory, Alaska, have considered the work of refining and smelting of metals particularly hazardous and have limited the hours of labor in all such establishments to eight in any one day.

WORK IN ELECTRIC-POWER PLANTS.

Arizona for the same reason has limited the hours of labor for all employees in electric-power plants to eight in any one day.

WORK IN PLASTER AND CEMENT MILLS.

Nevada treats work in plaster and cement mills as among those occupations having special hazards, and limits the working day of all employees of such mills to eight hours.

Still another group of laws covers employees on whose alert attendance to duty depend the lives and safety of many others.

RAILROAD TELEGRAPHERS, ETC.

Two States, Arkansas and Connecticut, in recognition of this responsibility have limited the hours of railroad employees controlling the movement of trains to eight in any one day.

HOISTING ENGINEERS.

Three States, Arizona, Montana and Pennsylvania, have considered the duties of hoisting engineers at mines as particularly

arduous and have provided that they may not work more than eight hours in any one day.

WORK ON IRRIGATION SERVICE.

Montana and the Federal Government limit the hours of labor for all persons employed on irrigation works to eight in any one day.

Probably in recognition of the strain of their duties letter carriers have been especially recognized in Federal hour regulation.

LETTER CARRIERS.

The Federal Government has passed a special act limiting the hours of letter carriers to eight in any one day. A fifty-six-hour week is permitted if the employee is allowed an amount of time off on some day of the following week; the amount of time off to exactly correspond with the number of hours worked on Sunday.

Only one law in the United States establishes the eight-hour day for all wage and salary earners.

ALL WAGE EARNERS.

The Territory of Alaska has been the first political division of the United States to pass an all-inclusive eight-hour law. This law, which provides an eight-hour day for all wage and salary earners, was submitted to the electorate and passed. An Alaskan court, however, has declared it to be unconstitutional. No test case has as yet reached the United States Supreme Court.

VALUE OF LAWS.

These laws do establish a working day definitely limited to eight hours. They recognize, not that a person should be paid extra compensation for working over eight hours in any one day, but that the working day should stop with the completion of eight hours' labor. In many cases this recognition seems to be based on the feeling that the occupation so regulated is dangerous or wearisome above the ordinary. In the acts limiting the hours for persons working for the Government and on Government contracts, however, there seems to be a definite recognition of the maximum eight-hour day as the longest justifiable period of any labor and of the obligation of the Government when employing labor to conform to a fair standard.

3. EIGHT-HOUR LEGISLATION IN FOREIGN COUNTRIES.

Twenty countries had embodied in their legislation, and one in its constitution, the principle of the eight-hour day or 48-hour week before the International Labor Conference, under the League of Nations, drafted its convention recommending the eight-hour day and the 48-hour week for incorporation into national legislation. Thus, as pointed out in effect by various speakers among Government and labor delegates, the conference was merely engaged in registering accepted principles, or at the very most, in harmonizing divergences of practice in respect to the application of the eight-hour day. It was insisted upon by the workers and the Government

delegates that the committee appointed to study the matter and to draft a convention should consider only the practical aspects of the matter, that the principle had already been agreed upon. To appoint a committee to discuss the principle of the eight-hour day and the 48-hour week, would be, as one Government delegate wittily put it, like appointing a committee for the discovery of America.

The following statement shows the countries included and the date of enactment of the eight-hour laws. The State laws of the United States and those of the States comprising the Federal unions of some of the South American countries have been omitted. No attempt has been made to cover those eight-hour laws of certain countries which are applicable to public employments, nor those already applying to mines. While some of these newer laws include mining, yet before the war and before the springing up of these general eight-hour laws, mining was already practically an eight-hour industry the world over, and is now moving in the direction of a seven or six-hour day:

GENERAL EIGHT-HOUR LAWS IN FOREIGN COUNTRIES.

Country.	Date.	Country.	Date.
Austria.....	Dec. 19, 1918.	Panama.....	Not ascertained.
Czecho-			
Slovakia.....	Dec. 9, 1918.	Peru.....	Jan. 15, 1919.
Denmark.....	Feb. 12, 1919.	Poland	Nov. 23, 1918
Ecuador.....	Sept. 11, 1916.	Portugal	May 7, 1919.
Finland.....	Nov. 27, 1917 (amend-	Russia	Oct. 26 (Nov. 11), '17.
	ed Aug. 14, 19, '18).	Serbs, Croats and	
		Slovenes (Jugo-	
		Slavia).	Sept. 12, 1919.
France.....	Apr. 23, 1919.	Spain	Apr. 3, 1919.
Germany.....	Nov. 23, 1918.	Sweden	Oct. 17, 1919.
Luxemburg.....	Dec. 14, 1918.	Switzerland	June 27, 1919.
Mexico.....	Jan. 31, 1917. ¹	Uruguay	Nov. 17, 1915.
Netherlands....	Nov. 1, 1919. ²		
Norway.....	Aug 14, 1918.		

¹ Constitution. ² Date in effect.

¹ United States Bureau Labor Statistics, Labor Review, March, 1920, pp. 184-185. See also, Report on 8-hour day or 48-hour week, prepared by the Organizing Committee for the International Labor Conference, Washington, 1919 (London, 1919), p. 156.

II. THE EIGHT-HOUR DAY AND OUTPUT.



II. THE EIGHT-HOUR DAY AND OUTPUT.

INTRODUCTION.

That the length of the working day bears a very definite relation to output is no longer a theory: it has been proven by actual records in modern industrial establishments.

Under an eight-hour day it has been shown that not only is the output per hour per worker increased, but that the output of the entire plant for the entire day, and for longer periods of time, has been materially increased.

More than half a century ago the study of fatigue was begun in laboratories. The effect of over-exertion on the muscular and nervous system was carefully and scientifically investigated and the principle was established that over-fatigue had deleterious results. But only within recent years has the actual application of this principle in industry been tested. Numerous general opinions and observations are to be found in the statements of employers and efficiency engineers; in practically no instance has a modern large employer of labor gone on record as favoring a longer working day rather than a shorter one.

But it is not necessary to rely on merely generalizations, and in the following pages a brief resume of some of the more important records of output and productivity under the eight-hour day as compared with longer working days are presented.

During the war with Germany the question of an eight-hour day was put to its most severe test. The following problem presented itself: It was necessary to secure the greatest possible output in industry and at the same time to conserve the health of the workers. The question to be solved was, What length of working day would be most profitable from the point of view of productivity as well as of sustained health and efficiency?

As affording an answer to this problem—which is equally as important in time of peace as in war—the experience in American and in British industry is illuminating. On this point especial attention may be directed to the experience of numerous establishments, to the results of a recent study by the United States Public Health Service,

and to the statements of the experience of the British Ministry of Munitions.

1. EFFECT OF REDUCTION OF HOURS UPON OUTPUT: SUMMARY OF EXPERIENCE IN VARIOUS INDUSTRIES AND PLANTS.

In the following paragraphs is presented a summary of the experience of a number of plants relating to the effect of reduction of hours upon output. The data are by no means exhaustive, but they are believed to be fairly representative.¹

¹ The following sources of information have been consulted:

Munitions manufacturing (Great Britain). Great Britain ministry of munitions, health of munition workers committee, memoranda Nos. 5, 12, 7, 20. Great Britain Home Office, investigation of fatigue by physiological methods.

Commonwealth Steel Co., iron and steel. United States Bureau of Labor Statistics, report on conditions of employment in the iron and steel industry in the United States (S. Doc. No. 110, 63d Cong., 1st sess., v. 3).

John E. Grant (England), iron and steel. Letter from John E. Grant published in Engineering (London), October 22, 1915.

Anthracite coal, mining. Monthly Review of the United States Bureau of Labor Statistics, August, 1917.

William J. Crawford Co., granite. Letter from W. J. Crawford published in the hearings on the eight-hour bill (H. R. 27281) before the House Committee on Labor, January 20 to February 6-12, 1913.

United States Navy Yard vs. Newport News Shipbuilding Co., battleships. The eight-hour day and Government construction by direct labor, by Ethelbert Stewart. In Commons, May, 1905.

Paper manufacturing industry, paper. United States Tariff Board. Report on pulp and newsprint paper industry, 1911.

W. H. McElwain Co., boots and shoes. The Survey, May 12, 1917, reprinted in the United States Bureau of Labor Statistics Monthly Review, June, 1917.

Boot and shoe industry, boots and shoes. National Industrial Conference Board. Hours of work as related to output and health of workers: Research report No. 7, June, 1918.

Fayette R. Plumb (Inc.), tool manufacture. Monthly Review of the United States Bureau of Labor Statistics, June, 1917.

J. H. Williams & Co., iron forgings. United States Industrial Commission Report, 1901, volume 14.

Cotton manufacturing, cotton. National Industrial Conference Board. Hours of work as related to output and health of workers, cotton manufacturing. Research report No. 4, March, 1918.

Manufacturing (general), manufacturing. Eight hours for laborers on Government work. Report by V. M. Metcalf, Secretary Department of Commerce and Labor, on H. R. 4064 (eight-hour bill), 1904.

Zeiss Optical Works, Jena, Germany, optical goods. Abbe, Ernst. Die Volkswirtschaftliche Bedeutung der Verkürzung des industriellen arbeitstages. Jena, 1901. Digest in Goldmark's "Fatigue and Efficiency," 1912.

Engis Chemical Works, Leige, Belgium, chemical goods. Fromont, L. G. Une experience industrielle de reduction de la journee de travail. Brussels, 1906. Digest in Goldmark's "Fatigue and Efficiency," 1912.

Salford Iron Works, Manchester, England, iron and steel. Eight hours for laborers on Government work. A report of the Secretary of Commerce and Labor to the House Committee on Labor, 1905.

Cleveland Hardware Co., hardware. Survey, February 2, 1918.

Joseph Feiss Co., clothing. Survey (New York), February 2, 1918.

"The Case for the Shorter Work Day," brief of Mr. Felix Frankfurter in the Oregon ten-hour case before the Supreme Court of the United States, 1915.

1. Commonwealth Steel Co., Granite City, Ill., iron and steel, 1912, 12 to 8 hours. Under the 8-hour system, in spite of the increase in hourly rates, there was a slight decrease in the cost of production, owing to the higher efficiency of the workers. Also the quality of the product was very much improved.

2. John E. Grant Co., England, iron and steel, 1914, from two 10-hour shifts to three 8-hour shifts. Normal weekly working hours increased 34 per cent. Output per man-hour increased, each man in his 48-hour week doing as much as he did before in the 50-hour week. Output increased 50 per cent.

3. W. H. McElwain Co., Boston, Mass., boot and shoe, 1916-17, 55-hour week to 52-hour week. Productive unit per employee per day increased from 8.91 to 9.02. Our experience has been that over-time work is decidedly undesirable.

4. Twelve coal companies, anthracite coal, 1915-16, 9 to 8 hours. Output per man-day for miners and miners' laborers in gross tons increased from 4.08 in 1915 to 4.20 in 1916; output per man-day for all labor in gross tons increased from 2.03 in 1915 to 2.06 in 1916.

5. William J. Crawford & Co., Buffalo, granite, 1912, 10 to 9 hours and 9 to 8 hours. The same man, under identically the same conditions, accomplished more of exactly the same kind of work when he was working 9 hours than he did when he was working 10 hours; and again, when the hours were reduced to 8 hours this same man accomplished still more in an 8-hour day than he did in a 9-hour day.

6. United States Navy Yard of Brooklyn, and Newport News Shipbuilding Co. (a private company), shipbuilding, 1903-4, 8-hour day in Government yard; 10-hour day in Newport News Co. Two battleships were built simultaneously, one, the *Connecticut*, by the United States navy yard in Brooklyn, under the 8-hour day and by union men; the other, the *Louisiana*, by contract by the Newport News Shipbuilding Co., employing its men 10 hours a day. The average production per man per hour on the *Connecticut* exceeded by 24.48 per cent the average production per man per hour on the *Louisiana*.

7. Several paper mills, paper manufacture, 1908-9, 12 to 8 hours. Change from a 12-hour to an 8-hour system in 1909 showed a reduction in the labor cost per ton of paper from \$4.35 to \$3.73. In other words, an increase in the hourly rate of wages to the extent of 33 per cent not only failed to result in a corresponding increase in the cost of labor per ton of paper, but was accompanied by an actual reduction in cost. While the figures of \$4.35 in 1908 happened to be the highest in 10 years, there was not a single year in that decade under the 12-hour system which showed as low a cost as in 1909, the first year under the 8-hour system.

8. One hundred and ninety establishments, boot and shoe manufacturing, 1916-17, from 54 to 50 hours in majority of cases. Study

made by National Industrial Conference Board presents the employer's point of view. Of 77 establishments reporting on output after reduction in hours, 31.2 per cent state that it was maintained and 68.8 per cent that it was decreased. Both groups reported an average reduction of between 4 and 4½ hours. The report concludes: "If all such hindrances as inefficient management, irregular hours, short-time piece-workers and arbitrary reduction were eliminated, and a genuine spirit of co-operation was secured, it is possible that a 50-hour week would be as productive as a longer one."

9. Foyette R. Plumb (Inc.), Philadelphia, Pa., tool manufacturing, 1916-17, 57½ hours per week to 52½ hours per week. The weekly production in one of our worst departments, in spite of the shorter hours, has increased 18.4 per cent, and in the entire plant 10 per cent.

10. J. H. Williams & Co., Brooklyn, N. Y., iron and steel forgings, 1901, 10-hour day to 9-hour day. There is a slightly larger average output for the 9-hour day than for the 10-hour day, though in every other respect the work was done under similar conditions. There is throughout an increased rate of hourly output and a total output somewhat larger for the shorter working time.

11. One hundred and thirty establishments, cotton manufacturing, 1917, 57 to 54 hours and 64 to 60 hours. Study made by the National Industrial Conference Board presents the employer's viewpoint. Of the 130 establishments, 7.7 per cent maintained their previous output; 62 per cent showed a decrease in output; the effects upon output in the other establishments were not reported. Changes in policy, management, efficiency of machinery, material manufactured during period of investigation not stated.

12. Three hundred and ninety-six establishments, 83 manufacturing industries, 1904, various reductions. Out of 334 establishments, 11.1 per cent found no increase in cost of manufacture resulting from reduction in hours, while 88.9 per cent found manufacture was increased; also 9.3 per cent reported no decrease in quality of product, whereas in 90.7 per cent a decrease in product did result.

13. Zeiss Optical Works, Jena, Germany, optical instruments manufacturing, 1900, 9 to 8-hour day. Under the 8-hour system, as compared with the superseded 9-hour system, the hourly earnings of pieceworkers increased 16.2 per cent. This represents a greater daily output than before.

14. Engis Chemical Works, near Liege, Belgium, chemical manufacturing, 1892. two 12-hour shifts (10 hours actual work) to three 8-hour shifts (7½ hours actual work). Within 6 months after the change was effected the workers had equaled in 7½ hours the previous output of 10 hours and the daily earnings for 7½ hours' work equaled the amount formerly earned in 10 hours. The total cost of

production was reduced 20 per cent and the quality of the output improved.

15. Salford Iron Works, Manchester, England, machinery manufacturing, 1893, 53 hours per week to 48 hours per week. At the end of a year's time it was found that the amount of output for the year was slightly greater than the average of the six preceding years.

2. RELATIVE EFFICIENCY OF THE EIGHT-HOUR AND TEN-HOUR SYSTEMS.

RESULTS OF A STUDY BY THE UNITED STATES PUBLIC HEALTH SERVICE.¹

In 1917, when the question of output was of paramount importance, the Public Health Service, in conjunction with the committee on industrial fatigue of the Council of National Defense, and the committee on fatigue in industrial pursuits of the National Research Council, began an investigation of the effects of certain industrial conditions on output, especially the influence of fatigue, as shown by the relative production under different working hours when other conditions were reasonably similar.

Accordingly a study was made of two plants where conditions, other than the length of a working day, were as similar as could be found. The investigation was made by P. S. Sargent and his associates, under the general direction of Frederick S. Lee, and the report was prepared by Josephine Goldmark and Mary D. Hopkins, all of the Public Health Service.

This study was the first comprehensive investigation made with the definite purpose of ascertaining the relative efficiency of the eight-hour and 10-hour systems. In view of its importance and of the fact that it was conducted by so unbiased an agency as the Federal Public Health Service, its findings are given in some detail below.¹

a. *Summary of Conclusions.*

The following is a summary of the conclusions stated in the language employed by the Public Health Service:

A comparison of the 8-hour and 10-hour systems leads to the conclusion that the 8-hour system is the more efficient. This is evidenced by—

1. *Maintenance of output.*—The day shift: The outstanding feature of the 8-hour system is steady maintenance of output. The outstanding feature of the 10-hour system is the decline of output.

2. *Lost time.*—Under the 8-hour system work with almost full power begins and ends approximately on schedule, and lost time is reduced to a minimum. Under the 10-hour system work ceases regularly before the end of the spell and lost time is frequent.

3. *Stereotyped or restricted output.*—Under the 10-hour system artificial limitation of output is widely prevalent. Under the 8-hour

¹ Treasury Department, United States Public Health Service. Studies in industrial fatigue: Fatigue in relation to working capacity. Comparison of an eight-hour plant and a ten-hour plant. Public Health Bulletin No. 106, February, 1920.

system output varies more nearly according to individual capacity.

4. *Industrial accidents.*—(a) In the absence of fatigue, accidents vary directly with speed of production owing to increased exposure to risk.

(b) The breaking up of this regular variation by fatigue is indicated by—

- (1) The rise of accidents with the fall of output;
- (2) The disproportionate rise of accidents with the rise of output and the absence of a proportionate fall of accidents with the fall of output in the final hours of the day.

(c) The importance of fatigue in the causation of accidents is emphasized by the fact that the higher accident risk accompanies the deeper decline of working capacity—

- (1) In the second spell as compared with the first;
- (2) In muscular work as compared with dexterous and machine work;

(3) At the 10-hour plant as compared with the 8-hour plant.

(d) The level of the accident rate varies inversely with the experience of the workers.

b. *Method of Study.*

The two plants chosen for investigation were engaged, one in the manufacture of munitions, the other in the manufacture of automobiles. The munition plant worked two shifts, the day shift being on duty from 7 A. M. to 12, and from 1 to 6 P. M., while the night shift worked full 12 hours, from 6.20 P. M. to 6.40 A. M., with a break of 20 minutes at midnight. The other plant worked three shifts of 8 hours each. Comparisons were made only for the day shifts, since in the 8-hour plant only 8 per cent of the force were in the night shift, and there were other differences which made it difficult to compare results fairly. In each plant certain repetitive processes, comparable with those selected in the other, and giving an output which could be counted or measured during the period of observation, were chosen, and repeated records were made of the output in each. For each process an average output for each hour of the working day was obtained, based on many single observations of each individual worker, and of many different workers, in order to obtain a result which would not be affected by the chance variations which might appear in the case of a single worker. This average having been secured, the maximum hourly production for each process was taken as the norm for that process, and the output of the other hours was expressed as a percentage of this. This method, which differs from the customary method of using the aver-

age hourly output as the norm, is defended on the following grounds:

Absolute output at the two plants can plainly not be compared. Different workers are employed; the processes, though comparable, are not the same; the product is diverse. Even the deviations from the average output at the two plants can not fairly be compared, as may be readily shown. In such an average the drop of a single hour, if great, may lower the general level so far as to make it wholly unrepresentative of the entire day's work, and thus prevent us from comparing the deviations hour by hour with similar deviations from a more representative average. This is the case at the 10-hour plant, where the depression of the average by the deep drop of the final hour to 80 invalidates a comparison of the hourly deviations with the wholly representative average of the 8-hour plant, which is based on hourly figures varying within narrow limits and a last hour falling only to 95.5.

c. Production Curves in Different Types of Operations.

In the following tables are summarized variations in output per hour in the two plants and in the first and second halves of a working day for the two plants:

A. RELATIVE HOURLY PRODUCTION IN AN 8-HOUR DAY PLANT, COMPARED WITH THAT IN SIMILAR OCCUPATIONS IN A 10-HOUR DAY PLANT.

Nature of work.	Average output observed each working hour.*									
	1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th.	10th.
Dexterous handwork										
8 hr. day.....	91.2	98.0	98.2	97.0	94.8	95.6	95.6	88.9	....	....
10 hr. day.....	88.6	97.4	98.5	97.1	91.1	90.9	93.0	90.7	91.2	77.0
Muscular handwork										
8 hr. day.....	93.6	99.6	96.2	91.1	95.0	92.5	90.5	84.4	....	....
10 hr. day.....	90.8	95.0	92.9	92.7	83.9	93.5	89.3	85.0	82.0	59.9
Lathe machine work										
8 hr. day.....	84.8	93.1	96.8	92.7	97.4	93.8	93.2	91.0	....	....
10 hr. day.....	65.1	90.7	92.0	100.0	92.7	85.2	90.1	91.5	92.3	88.7
Misc. machine work										
8 hr. day.....	88.7	94.9	98.4	96.7	95.4	95.8	97.5	94.8	....	....
10 hr. day.....	86.2	92.2	98.9	99.1	93.8	90.7	93.9	97.1	97.3	90.7

* Index number=percentage variation from maximum; maximum=100.

B. RELATIVE PRODUCTION IN MORNING AND AFTERNOON SPELLS IN 8-HOUR DAY PLANT, COMPARED WITH THAT IN SIMILAR OCCUPATIONS IN A 10-HOUR DAY PLANT.

Nature of work.	Average output observed.*			
	A Average for 1st half.	B Average for 2nd half.	Ratio of A to B.	Average for day.
Dexterous handwork				
8 hr. day.....	96.1	93.8	97	94.9
10 hr. day.....	94.5	88.5	94	91.6
Muscular handwork				
8 hr. day.....	95.1	90.5	95	92.9
10 hr. day.....	91.1	81.9	90	86.5
Lathe machine work				
8 hr. day.....	91.8	93.9	102	92.8
10 hr. day.....	88.1	89.5	102	88.9
Miscel. machine work				
8 hr. day.....	94.7	95.9	101	95.3
10 hr. day.....	94.0	94.0	100	94.0

* Index number=percentage variation from maximum; maximum=100.

The output curve in general begins at something under its full height, works up within the second or third hour to a peak, and then declines, the last hour showing a considerable fall. The second spell of work follows the same general outline, though on a lower level. The operations studied were divided into four types—dexterous handwork, muscular handwork, lathe machine work, and miscellaneous machine work. These showed some interesting variations in their output curves. In both plants the dexterous handwork processes showed a pronounced tendency to reach their maximum output in the third hour; apparently a considerable amount of practice was required to get the workers into their full swing. After the lunch interval practice was again required to bring up the workers' efficiency, but by the second hour this was accomplished, and in the 8-hour plant production then continued high until the last hour, when the customary drop occurred. In the 10-hour plant the afternoon level was relatively lower than in the 8-hour, and the droop of the final hour was far more pronounced.

The curve of output in the muscular handwork processes reaches its maximum earlier than in the case with the dexterous processes, and the fall begins sooner, and is more marked throughout the day than is the case with any other type. As the main requirement in

this work is physical strength, fatigue shows itself more plainly than in types where dexterity is required, and the heavier the process the more marked is the effect of fatigue, as shown by the fall in output. The output of the first hour after lunch is in general larger than that of the second, showing the effect of the rest, the output not being affected by the loss in practice shown by the dexterous types. The afternoon fall is much greater and begins earlier than in the other types.

The curves of the two types of machine work differ from each other, but both are marked by a singular maintenance of output through the second spell of work, and a relatively slight decrease in the last hour. In one operation the output of the last hour is actually the highest of the day. It is pointed out that this does not necessarily mean that fatigue has not developed. In the case of the miscellaneous machine processes the output is governed to a large extent by the machine, and the fatigue of the operator has little effect on it. In the case of the lathe machine operations the theory is put forth that fatigue is masked by the rhythmic nature of the work.

d. Comparative Output of the Two Plants.

In each of the separate types of work the 8-hour plant showed a greater steadiness of production than the 10 hour.

The disparity between the two sets of figures is striking. The lowest hourly output of the 8-hour plant differs by less than 10 points from the highest, while for the 10-hour plant the variation is not far from 20 points. The difference is noticeable not only in the first and last hour of each spell of work, but in the lower level of the entire second spell in the 10-hour plant. Summing up the situation, the authors declare that the outstanding feature of the 8-hour system is steady maintenance of output, while the outstanding feature of the 10-hour system is the decline of output.

e. Time Lost in Starting and Stopping Work.

At the 8-hour plant the workers in the various departments start and stop work practically on schedule. In one department, for instance, transmission gear cutting, observation showed that only two minutes was lost at the end of the morning shift; work also started punctually, 7 minutes being required to get under way in the morning shift, 3 minutes on the afternoon shift.

At the 10-hour plant, on the other hand, fully 15 minutes before the noon hour and fully 30 minutes before quitting time at night,

workers may be seen sitting idly at their machines, while the shafting still runs on, walking about, chatting, or else making preparations to leave. Seven and one-half per cent of the total daily time is thus lost by many workers, of which 5 per cent is in the last hour.

f. Relation Between Fatigue and Industrial Accidents.

The report takes up, in considerable detail, the theories advanced to account for the customary accident curve. In this, accidents are uniformly low in the first hour of the working spell. They then rise gradually to a peak, most frequently in the penultimate hour of the spell, from which they gradually decline. In the second spell there is a generally similar rise and fall, often at a somewhat lower level. Speed of operation is admitted as an important cause of accidents, the exposure to risk increasing as the number of operations per hour or per minute rises. Fatigue has been advanced as an additional and important cause, but this theory has been attacked on the ground that in the final hours of the working spell, when fatigue should be at its height, the accident curve is falling. In this study, after making careful allowance for such items as lost time, change in work, and the like, which might interfere with the normal incidence of accidents, an index figure is worked out, showing the hourly accident rate per unit of output. This presents a striking contrast to the customary accident curve, for, although in the latter hours of the spell or the day the accident rate declines, yet the rate per unit of production shows an increase. The main conclusions reached in this study of accidents are as follows:

(a) In the absence of fatigue, accidents vary directly with speed of production, owing to increased exposure to risk.

(b) The breaking up of this regular variation by fatigue is indicated by—

(1) The rise of accidents with the fall of output.

(2) The disproportionate rise of accidents with the rise of output, and the lack of a proportionate fall of accidents with the fall of output in the final hours of the day.

(c) The importance of fatigue in the causation of accidents is emphasized by the fact that the higher accident risk accompanies the deeper decline of working capacity—

(1) In the second spell as compared with the first.

(2) In muscular work as compared with dexterous and machine work.

(3) At the 10-hour plant as compared with the 8-hour plant.

(d) The level of the accident rate varies with the inexperience of the workers.

3. HOURS OF LABOR IN RELATION TO OUTPUT IN BRITISH MUNITION FACTORIES.¹

In Memorandum No. 20 on "Weekly Hours of Employment," issued under date of October, 1917, by the health of munition workers committee of the British Ministry of Munitions, it is urged "that the time is now ripe for a further substantial reduction in the hours of work." In view of the importance of this subject in connection with labor conditions in the United States, the text of this memorandum is given herewith in full.

a. *Weekly Hours of Employment.*

Memorandum No. 20.

1. The committee have had under consideration the recommendations made in regard to the maximum weekly hours of employment of men, women and young persons, which were set out in their Memorandum No. 5 on "Hours of work" (issued January, 1916). When the committee commenced their labors, two years ago, they were faced with an almost complete absence of any scientific data as to the relation of hours of employment to output. They had accordingly to rely upon the general evidence of employers, workers and other persons of experience. As explained in Memorandum No. 1 on "Sunday labor," this evidence was practically unanimous as to the need for a weekly period of rest. There was, however, revealed a marked divergence of opinion as to the limits within which weekly hours of employment should be kept. It was a matter of urgent importance that some guidance on this subject should be offered forthwith. On the other hand, it was clear that in the absence of exact and reliable data any recommendations put forward at that time must necessarily be tentative and provisional in character. Moreover, if they were to be of practical value and to secure any wide measure of acceptance it was necessary that they should satisfy two essential conditions. First, they had to be such as would be regarded as reasonable and moderate by the great mass of employers and workers, and in the second place while taking account of the probable duration of the war, they had to have regard to the immediate urgency of output at the time. Any recommendations which might involve even a temporary diminution of output would have been doomed to failure. It was evident, in fact, that any reduction of hours proposed must be gradual, and the committee accordingly based their recommendations on what appeared to be immediately practicable rather than on what was ultimately desirable or might be defensible on a physiological basis. Further, they found it necessary to confine themselves to suggestions as to

¹Health of munition workers committee, ministry of munitions. Memorandum No. 20. Supplementary to Memorandum No. 5 (hours of work). Weekly hours of employment, October, 1917 Cd. 8801). 7 pp. Price, 1d. net.

the maximum limits within which employment should be restricted, and they did not endeavor to set out the extent to which, in their opinion, it was necessary or desirable to reduce these limits to meet varying industrial conditions.

2. The committee are of opinion that their cautious action and advice has been justified by events, and they are glad to take the present opportunity of recognizing the sympathy with which their recommendations were received, as well as the active and continuous efforts which have been made by the departments concerned to secure their general adoption. The limits of the weekly hours of employment then suggested were—

(a) For men, that the average weekly hours of employment should not exceed 65-67 (exclusive of meal times), i. e., a 13-14-hour working day.

(b) That boys under 18 should be allowed to work the same hours as men, provided that—

(1) The hours of boys under 16 should be limited to 60, so far as possible.

(2) Substantial relief at the week ends should be insisted on.

(3) Night work should be limited, as far as possible, to boys over 16.

(c) That for women and girls employment should be restricted within the normal legal limit of 60, i. e., a 12-hour working day, though within these limits moderate daily overtime might be allowed, and that the employment of girls under 18 at night should be limited as far as possible.

3. The committee are of opinion that the time has now come when these recommendations may properly be reviewed in the light of the following facts: First, the experience gained and the new evidence collected during the past two years; secondly, the strain involved by three years of war conditions, a strain which is likely still to continue for a considerable period; and, thirdly, the rapid increase in the number of women workers and in the variety of processes on which they are employed.

4. From the commencement of their work the committee have attached the highest importance to the collection of exact data affecting the problems at issue. The field to be covered is a very wide one, while the process of collection is slow and laborious. The committee, however, consider that the data which have already been collected on their behalf by Dr. Vernon and others are of great practical value and merit the most serious attention. The results of these investigations are the more valuable, in that they have been undertaken solely in a spirit of scientific investigation and with no preconceived opinions. The selection of factories for inquiry was based solely on the likelihood of reliable data being forthcoming. Further, in none of the operations studied was there any change in the nature of the operation or the type of machinery during the period under review. The data were so chosen as to eliminate any possible disturbance due to increasing skill. There is no reason

to suppose that the data quoted below were vitiated by any artificial restriction of output.

5. The results of Dr. Vernon's investigations, which covered a period of over a year, are set out in Memorandum No. 18. Although that memorandum has already been submitted to the ministry and published, it appears desirable shortly to set out again the principal results of his investigations in so far as they concern the relation of weekly hours of employment to output. The following are the four sets of data which bear on this subject:

(A) WOMEN TURNING ALUMINUM FUSE BODIES.

	Average weekly hours.		Relative hourly output.	Relative total output.
	Nominal.	Actual.		
First period	74.8	66.2	100	100
Second period	61.5	54.8	134	111
Third period	54.8	45.6	158	109

During the first period Sunday work (eight hours) was done on five out of six Sundays; during the second on three out of eight, the nominal weekly hours in these three weeks being 66.5 instead of 58.5, an average of 61.5; during the third period the timekeeping was bad, the normal weekly hours of work averaging about 55. Dr. Vernon accordingly suggests that with good timekeeping a nominal 50-hour week ought to yield the same actual hours of work (namely, 45.6); that is to say, that for women engaged in moderately heavy lathe work a 50-hour week yields as good an output as a 66-hour week and a considerably better one than a 75-hour week.

(B) WOMEN MILLING A SCREW THREAD.

	Average weekly hours.		Relative hourly output.	Relative total output.
	Nominal.	Actual.		
First period	71.8	64.9	100	100
Second period	64.6	54.8	121	102
Third period	57.3	48.1	133	99

Dr. Vernon explains that the reason why a reduction of hours did not lead to an improvement of total output similar to that in the fuse-body turning operation is that for four-fifths of the total time required to mill the screw thread on the fuse body the operative had

no opportunity of quickening her working speed, since she had merely to stand idly watching her machine, whereas the lathe worker had to apply seven different cutting and boring tools in succession to each fuse body, and could quicken up her speed of work at almost every stage.

(C) MEN ENGAGED IN HEAVY WORK.

	Average weekly hours.		Relative hourly output.	Relative total output.
	Nominal.	Actual.		
First period	66.7	58.2	100	100
Second period	62.8	50.5	122	106
Third period	56.5	51.2	139	122

It should be noted that during the third period the nominal weekly hours were about 5-6 less than during the second period. Owing to the cessation of Sunday labor the timekeeping was so much improved that the actual hours of work were greater than during the previous period.

(E) BOYS BORING TOP CAPS.

	Average weekly hours.		Relative hourly output.	Relative total output.
	Nominal.	Actual.		
First period	78.5	72.5	100	100
Second period	61.5	54.7	117	88
Third period	60.5	54.5	129	97

Increase of output in this process, which is largely automatic, could only be attained by a more continuous feeding of the machines throughout working hours.

6. The above data show that a reduction in the weekly hours of actual work, varying from 7 to 20, in no case resulted in more than an insignificant diminution of total output, while on the average it produced a substantial increase. As Dr. Vernon points out, the classification of the operations according to the possibility they offer for speeding up production demonstrates anew the self-evident fact that the alterations of hours may have very different effects in different operations. The exact measure of such alterations can not be predicted; it can only be ascertained by observation and experiment. It appears evident, however, that for processes similar

to those examined by Dr. Vernon the weekly hours can advantageously be reduced to a total of from 50 to 55, and he suggests that even lower limits might give an equally good output.

7. Two further points of importance emerge from consideration of these data. In the first place the rate of production changed gradually and frequently four months elapsed before an equilibrium value was reached. This gradual change appears to nullify the suggestion that the effect upon output of the change of hours was a mere consequence of the desire to earn the same weekly wages as before hours were shortened. The explanation is rather to be traced to the worker finding unconsciously and gradually by experience that he can work more strenuously and quickly for a short-hour week than for a long-hour week. In the second place, the evidence suggests that a considerable increase in the average hourly output is possible, quite apart from any increased rapidity of working. Thus, as the result of special investigations, Dr. Vernon found that in the case of the first body of workers mentioned above the time lost in commencing and stopping work during the first period averaged 37 minutes, as compared with only 26½ minutes during the third period.

8. Professor Loveday, in his memorandum on the "Causes and conditions of lost time," which is included in the committee's interim report on "Industrial efficiency and fatigue,"¹ also supplies valuable data of a somewhat similar character. In the first place, he points out that the proportion of lost time that is due to sickness and other unavoidable causes is, as a rule, greatly underestimated in factory records, and the proportion due to slackness consequently overestimated. In the second place, he expresses the view that long hours, much overtime, and especially Sunday labor exert a pernicious effect upon health, particularly of persons occupied in heavy trades. In paragraph 33 (5) of that memorandum he gives two tables, the first dealing with a body of about 180 men and the second with between 300 and 400 men employed on heavy work, their normal hours being from 65 to 70. In both these cases, when comparison is made with the figures of lost time for June, 1915, and for a year later, the fact emerges that there was a material increase in the amount of lost time and that by far the larger portion of the increase was due to recorded sickness. In both cases throughout recorded sickness represented a noticeably high proportion of the total amount of time lost.

9. Professor Loveday also devoted considerable space to the examination of figures concerning the amount of time lost before breakfast. He concludes:

(a) That if early hours be worked, the loss is likely to decrease if the start be later than 6 A. M.

(b) That when the total hours of the day-shift week are the same, there are likely to be more hours actually worked without than with work before breakfast, other conditions being similar.

¹ Co. 8511.

(c) That a reduction of hours may be compensated for or even outweighed by the abolition of early hours, partly owing to reduced absences, partly owing to reduced waste of time, and partly to the greater vigor of work after taking food.

He quotes figures for a number of different factors which confirm these conclusions. He strongly presses the view that food should precede work. He points out the undesirability of hunger work, its bad effect upon health, and the temptation to lose time in the short early spells.

10. There can be little doubt that there is an increasing recognition on the part of both employers and workers of the broad fact which emerges from the investigation of Dr. Vernon and Professor Loveday, namely, that substantial reduction of hours can be effected without any reduction of output. Whereas at the beginning of the war there was a general belief that longer hours necessarily produced larger output, it has now become widely recognized that a 13 or 14 hours' day for men and a 12 hours' day for women, excepting for quite brief periods, are not profitable from any point of view. Few, probably, would disagree with the statement contained in the summary prepared by the Right Hon. G. N. Barnes, M.P., of the recent reports of the commissions on industrial unrest that—

"There is a general consensus of opinion that Sunday and overtime labor should be reduced to a minimum, that holidays should not be curtailed, and that hours of work should not be such as to exclude opportunities for recreation and amusement."

It must be obvious that any reduction of hours which can be accomplished without loss of output is profitable not only to the employer, in that it reduces running expenses, but to the worker, since even if his or her daily measure of work involves the same amount of fatigue a longer period is left for recovery and for the enjoyment of adequate sleep and recreation.

11. It must be recognized that the conditions are not the same now as they were in the early days of the war; not only have large numbers of the youngest and strongest workers been withdrawn for military service, but those who remain are suffering from the strain inseparable from a continuous period of long hours of employment. To this must be added the strain caused by family and other anxieties arising out of the war. While much has been done to improve conditions of employment they are still in many cases far from ideal, notably as regards housing and transit. Further, large numbers of women are now employed on heavy work and on skilled operations involving constant thought and attention, which were considered two years ago to be quite beyond their capacity. It may be true that no serious breakdown of health has as yet been observed among the great mass of workers, but it cannot be assumed that this condition will continue indefinitely. The effects of the strain may even have been already more serious than appears on the surface, for while it is possible to judge roughly the general condition of those working in the factory today, little information is available concerning the large number of workers who for one reason

or another, and often because they find the work too arduous, are continually giving up their job. This is an important point which is liable to be overlooked, since the supply of labor has hitherto been adequate to fill their places. The irritability and nervousness mentioned by the commissions on industrial unrest are moreover well recognized symptoms of fatigue, while it must not be forgotten that the effects of fatigue are cumulative.

12. After careful consideration of all the circumstances, the committee are convinced that the maximum limits of weekly employment provisionally suggested are too high except for quite short periods, or perhaps in cases where the work is light and the conditions of employment exceptionally good. In the great majority of cases, however, the hours of work should now be restricted within limits lower than those quoted in paragraph 2 above. It is impossible to lay down a single rule as to the best hours in all cases; the best scheme can only be determined after a careful consideration of a number of different factor, e. g.—

(a) The strain involved in the work, its character (heavy or light, continuous or intermittent) and the mental demand which it makes upon the worker.

(b) The extent to which the pace of the work is governed by the machine.

(c) The factory environment—temperature, ventilation, etc.

(d) The individual physical capacity of the workers, and their age, sex and experience.

(e) The organization of the factory (including welfare supervision).

(f) The sufficiency and suitability of the worker's food, canteen accommodation, etc.

(g) The arrangements of the hours of work (spells, breaks and pauses).

(h) Conditions outside the factory—e. g., housing and transit.

In arranging the hours of work for a factory, allowance should be made, as far as discipline and organization permit, for the fact that the best hours of employment will not be the same for all processes, even in the same factory.

13. In conclusion the committee desire to urge the view that the time is now ripe for a further substantial reduction in the hours of work. If this be effected with due regard to the varying conditions prevailing in different branches of industry, they are satisfied that reductions can be made with benefit to health and without injury to output.

Signed on behalf of the committee.

GEORGE NEWMAN, M.D., *Chairman*.

E. H. PELHAM, *Secretary*.

October, 1917.

b. *Fatigue and Output.*¹

Where the factory day consists of four working periods output is low during two of these, viz., the early morning period and overtime.

During the middle periods of the day output is normally high, but is lowered by the working of overtime. This diminution is often so great that the total daily output is less when overtime is worked than when it is suspended. Thus overtime defeats its own object.

The lowest output of the day is often found in the early morning period at the beginning of the week, and in the period of overtime at the week's end. The change appears to be due to the accumulation of fatigue and to the wearing off of the Monday effect (described above).

The Monday effect * * * is not without a definite influence on output. It should be recognized and controlled where maximum output is desired.

In cases where the early morning hours are not worked the unsatisfactory output commonly found in this period appears to be transferred, or not to be transferred, to the succeeding period, according to the particular day of the week concerned. On Monday the suspension of the early morning hours will, as a rule, lower output in the succeeding period. On Tuesday also a lowering will be noticed. On the remaining days of the week the suspension of work during the early morning hours is followed by an improvement in the output of the morning period. The change is due to the greater influence of practice (through restored co-ordination) early in the week and of rest (through lessened fatigue) later on.

A worker may occasionally show a very high output in the early morning period.

Psychical influences affect output. The output on Saturday, in spite of great fatigue, is often high owing to anticipation of the week-end rest.

Workers may be so greatly fatigued at the end of the week that an extra period of overtime is beyond their powers, and should this be insisted upon on unsatisfactory output may be expected. A similar condition may exist on Friday.

Great variations may occur in the output of individual workers at different times. The causes of such variations may be purely personal and temporary, or they may be general and affect groups of workers.

The unsatisfactory output of the early morning period is due partly to loss of co-ordination. It appears to depend also upon lack of rest, lack of food and general discomfort. These things arise indirectly from excessive hours of labor.

The unsatisfactory output of the overtime period is due to fatigue.

The early morning period may be regarded as bearing a similar

¹ From second interim report of the British Home Office on an investigation of industrial fatigue by physiological methods.

relation to the day as Monday bears to the week. In both cases abstinence from work has produced a disinclination for labor and an inability to carry it out effectively. This is due rather to loss of co-ordination than to fatigue. Examples of similar loss of co-ordination may be found in knitting, in typewriting and in similar processes.

Where no overtime is worked output during the different periods of the day is more equal.

A worker employed for 10 hours per day may produce a greater output than when employed for 12 hours, the extra rest being more than sufficient to compensate for the loss of time.

A worker employed for 8 hours per day may produce a greater output than another of equal capacity working 12 hours per day.

A group of workers showed an absolute increase of over 5 per cent of output as a result of a diminution of $16\frac{1}{2}$ per cent in the length of the working day.

Another group increased their average rate of output from 262 to 276 as a result of shortening the day from 12 hours to 10, and to 316 on a further shortening of 2 hours.

A group of pieceworkers increased their earnings considerably as a result of a diminution in the length of the working day.

The suspension of overtime affects especially the output of the morning period.

The suspension of the early morning period increases the rate of output, even after overtime has been suspended.

The time "lost" by factory workers may approach an average of 10 per cent of the working day. The amount lost varies with the length of the working day and appears to depend upon fatigue.

Under the conditions studied, neither rate of working nor total output attains a maximum when a 12-hour day is adopted.

Rate of working and total output are limited by fatigue rather than by other conditions.

Total daily output may be diminished by the introduction of overtime.

4. EFFECT OF REDUCTION OF HOURS UPON OUTPUT IN CERTAIN ILLINOIS FACTORIES.

According to records of output under a 10-hour day as compared with that under an 8-hour day in certain factories in Illinois, the output per day and per hour was actually greater under the 8-hour-day system than under the 10-hour-day system.¹

These factories employed women chiefly; nevertheless the records obtained throw light on the general question of productivity in relation to the length of the working day.

The investigators were careful to select only records which were comparable. For example, records for three were found which had reduced hours without making any other changes which would affect output, these firms being classed as belonging to (A) garment industry, (B) soap industry and (C) corset industry. In shops A and B piece rates had been increased when hours were reduced, while in shop C they remained the same. In shops B and C the same group of workers was studied before and after the change. In shop A the entire force in a single department was studied. The following table shows the results:

EFFECT OF REDUCTION OF HOURS UPON OUTPUT OF THREE SPECIFIED SHOPS.

Shop.	Length of period studied.	Decrease in hours per week.	Increase in total output (per cent).	Increase in hourly output (per cent).
A.....	4 years	54-48	About 2	7.0
B.....	9 months	55-48	3.97	11.8
C.....	1½ years	54-48	13.4	31.5

The report contains accounts of detailed studies on which the above summary is based, and of these perhaps the most decisive is that made in shop B. Here a group of 24 workers engaged in wrapping and packing a standard brand of soap was selected for special study. These had all been employed at this same work for at least three years previous to the period covered. Their output was studied for 10 weeks, from February 25 to May 4, 1918, during which period they were working a 10-hour day, and for 10 weeks, from August 5 to October 12, 1918, during which they had an 8½-hour day. In

¹ Hours and health of women workers. Report of Illinois Industrial Survey, Dec., 1918, Springfield, Ill.

both periods the department was running to capacity, so that the factor of slack time did not enter.

Nevertheless, the investigators thought it worth while to check up the records for the two periods, and found that production varied as follows:

AVERAGE NUMBER OF CASES PACKED PER HOUR AND PER DAY IN THE SOAP INDUSTRY, FOR A PERIOD OF 10 WEEKS.

Week.	Per hour.		Per day.	
	10-hr. day.	8½-hr. day.	10-hr. day.	8½-hr. day.
First	5	5.5	43.7	41.4
Second	5.2	5.6	42.1	43.5
Third	5.3	5.6	38.6	45.6
Fourth	5	5.6	49.7	44.8
Fifth	5.2	5.5	41.8	43.8
Sixth	5.3	5.8	40.9	45.8
Seventh	5	5.8	40.6	46.3
Eighth	5.4	5.8	46.2	45.8
Ninth	5	5.9	39.5	46.9
Tenth	4.9	5.8	48.3	36
Entire period	5.1	5.7	42.8	44.5

Production under the shorter day proved not only larger than under the 10-hour day, but considerably steadier; both the hourly and the weekly output show smaller fluctuations. An apparent exception to this occurs in the tenth week of the 8½-hour-day period, but this is explained as due to the fact that during that week a large quantity of soap was spoiled, and the packers were held back by shortage of material. It must be remembered that the piece rates for this work had been increased when the hours were cut, so that the workers were not urged on to undue exertion by the desire of keeping up their former standard of earnings. Apparently the larger output of the two periods is due solely to increased efficiency springing from shorter hours of work.

5. ACTUAL RESULTS OF EIGHT-HOUR SYSTEM IN COMMONWEALTH STEEL COMPANY.

The first results of an actual test of the reduction of the length of shifts from 12 to 8 hours in the steel industry were published in 1912.¹ This test was made in the Commonwealth Steel Company's foundry at Granite City, Ill.

The results are summarized as follows:²

The workmen in the open-hearth department and boiler room were changed in 1912 from a system of two 12-hour shifts to one of three 8-hour shifts. To do this required increasing the number of men in the open-hearth department from 22 to 33, but in the boiler room it was necessary to increase the number of men only from 8 to 10. The hourly wage rates of all the men concerned were increased an average of 20 per cent. Exactly the same products were made under the two systems of working hours.

Under the 8-hour system, in spite of the increase in hourly rates, there was a slight decrease in the cost of production, owing to the higher efficiency of the workers. There were very considerable reductions in the amount of pig-iron charged and in the amount of fuel oil consumed. Also the quality of the product was very much improved.

1. The open-hearth department of the Commonwealth Steel Company consists of four 25-ton basic open-hearth furnaces, three of which only are operated at any one time, and which directly require for their operation 22 men for two 12-hour shifts, or 33 men for three 8-hour shifts. The plant, as a whole, employs 2,300 workmen.

2. The system was changed on February 5, 1912, from a 12-hour, 2-shift system 6 days a week to 3 shifts of 8 hours each.

3. The number of men on each shift (11 men) remained unchanged in the open-hearth department, while in the boiler room only 10 men were employed on the three 8-hour shifts in place of 8 men on the two 12-hour shifts.

4. An increase in the hourly rates for the men employed ranges from 14 to 22 per cent, averaging about 20 per cent.

5. Under the new arrangement there was a slight decrease in the cost of production, owing to the higher efficiency under the 8-hour system, in spite of the increase in the hourly rates and the number of men employed.

6. Reductions in the amount of extra pig-iron charged and in

¹R. A. Bull: "Economic side of the 12-hour shift in the steel foundry." Transactions of the American Foundrymen's Association, 1912.

²Report on conditions of employment in the iron and steel industry in the United States. S. Doc. 110, 62d Cong., 1st sess., Vol. III, p. 187 et seq.

the amount of fuel oil consumed were obtained under the new system. These reductions were almost enough to pay for the additional labor employed.

7. Also more accurate results were obtained in the quality of the castings. The physical and chemical specifications were more accurate under the 8-hour system, and the percentage of cracked castings was decidedly decreased.

8. The workmen were satisfied with the change, although their earnings were about 20 per cent less under the 8-hour system as compared with the 12-hour system.

The superintendent, in his address before the Foundrymen's Association, made the following statement, and submitted the following table:

Therefore, viewed from any conceivable angle, I claim the change is justifiable, and you will do well to make it, so far as your open-hearth furnaces are concerned. * * * Reverting finally to consideration of the steel maker, whose performance under both schedules is made the burden of this argument, the basic principle is absolutely sound, and rests on the incontrovertible fact that you cannot expect any man to give you the best that is in him when you keep him employed without intermission for 12 hours per day, seven days per week, at work making a heavy demand upon his mental and physical powers, under conditions of high temperature such as obtain on a furnace floor.

OPEN-HEARTH FURNACES.

	12-hour shift.	8-hour shift.
Average amount of extra pig-iron charged per heat	556 pounds.	424 pounds.
Average amount of fuel oil consumed per heat	1.275 gallons.	1.138 gallons.
Average amount of fuel oil consumed per ton of metal charged	55 gallons.	49 gallons.
Average number of cracked casting per heat.	0.49	0.37.
Average of longest intervals between reversals of burner during 12-hour periods.	26 minutes.	28.7 minutes.
Average of chemical analyses of all heats:		
Carbon	Correct per cent.	Correct per cent.
Phosphorus	0.011 per cent.	0.011 per cent.
Sulphur	0.022 per cent.	0.022 per cent.
Manganese	2 points under.	Correct per cent.
Silicon	1 point under.	Correct per cent.
Maximum phosphorus in any heat.	0.022 per cent.	0.018 per cent.
Maximum sulphur in any heat.	0.025 per cent.	0.025 per cent.
Average physical tests of all heats:		
Yield point per square inch.	13 per cent over.	15.5 per cent over.
Tensile strength per square inch.	5.9 per cent over.	5.8 per cent over.
Elongation in 2 inches.	4.6 points over.	4.1 points over.
Reduction of area.	7.9 points over.	7.2 points over.
Minimum physical tests of any heat (not combined results of one bar, but individual minimums of results covering all bars):		
Yield point per square inch.	2.5 per cent under.	7.7 per cent over.
Tensile strength per square inch.	4.7 per cent under.	1.4 per cent under.
Elongation in 2 inches.	5 points under.	3 points under.
Reduction of area.	8.3 points under.	7.6 points under.

6. THE EXPERIENCE OF THE SALFORD IRON WORKS AT MANCHESTER, ENGLAND.

(Summary from Goldmark's *Fatigue and Efficiency*.)

One of the most conclusive and influential of the experiments in shortening the day's work was made by the firm of Mather & Platt in 1893 at the Salford Iron Works at Manchester, England. This experiment is of particular interest because it was carried on during an entire year for the express purpose of measuring the effects of reduced hours, "to prove how far the widespread desire for shorter hours might be met without danger to the mechanical trades."¹

The full complement of men at the Salford Iron Works during the trial year (March 1, 1893, to February 28, 1894) was 1,200. The character of the work turned out was similar to that of the preceding six years; that is, general engineering work. Since the firm was subject to keen competition in home and foreign markets, a detailed study was made of the effect of shorter hours on the cost of labor. In order to carry out the trial with scientific precision and care, extremely accurate comparisons were made by expert accountants. Mr. Mather vouches for the absolutely correct and trustworthy nature of the results, while he states that their confidential nature makes it impossible to publish all of the figures which were later given to the Government officials. Previous to the trial year, the week's work was first 54 and then 53 hours, and the figures taken as standards with which to compare results are the averages, per year, of the previous six years.

The most noteworthy statement in the report is that under the 48-hour week production increased. Selling prices, moreover, were lower than in the previous years, so that during the trial year the cost of wages in proportion to "turnover" rose 0.4 per cent. Had selling prices remained the same, the cost of wages would have shown a decided decrease instead of an increase of 0.4 per cent.

* * *

In the light of our previous studies of fatigue and the strain upon men's energies in overwork, it is extremely significant that the management of the Salford Iron Works attributed the maintenance of full production during the trial year "solely to the *unimpaired*

¹ Mather, Wm., M. P.: *The Forty-eight Hours Week: A Year's Experiment and its Results at the Salford Iron Works, Manchester.* Manchester, 1894.

and cheerful energy on the part of every man and boy throughout the day.”¹

“We seem,” says the report (and the statement is the more impressive because this investigation was not primarily concerned with the workers at all, but with the effect of shorter hours upon the output of “one of the great staple trades of the country” centering in Lancashire and Yorkshire), “to have been working in harmony with a natural law, instead of against it. * * * The most economical production is attained by employing men only so long as they are at their best. When this stage is passed, there is no true economy in their continued work.”

As one result of the “unimpaired and cheerful energy” of the workers under the 48-hour system, the improvement in respect to “time lost without leave” is an important item. Under the 53-hour system the proportion of such “time lost” to the total time worked averaged 2.46 ^{per cent}, while under the new arrangement it was only 0.46 per cent. This loss of time meant, of course, a serious inroad upon production, and the greater “promptitude,” “steadiness,” “life and spirit about commencing work” reported by the foremen of various departments¹ aided in bringing about the success of the 48-hour week.

Eleven years after this experiment was tried, the United States Bureau of Labor inquired of Messrs. Mather and Platt whether their works were still upon an 8-hour basis, and received a reply dated May 24, 1904, stating that “our experience since the first year in which it (the 8-hour system) was tried has fully borne out the conclusions then arrived at, and we are fully satisfied that, as regards the comparison between eight and nine hours per day, the balance of advantage is in favor of the shorter period.”²

7. SHORTER WORK DAY AND ACCIDENTS.

In his testimony before the New York State Factory Investigating Commission, Mr. Nathan I. Stone, former Expert, United States Tariff Commission, gave his opinion on the relation of the length of the working day to accidents in response to the two questions stated below, as follows:

Q. Did the paper manufacturers, do you know, maintain the same help they had before the 8-hour shift?

A. They did, and an entire explanation of [the fact] that where

¹ Italics added.

² Op. cit., pp. 25 and 26.

¹ Op. cit., p. 79.

² Bulletin of the New York State Department of Labor. No. 25, June, 1905, p. 240.

the cost went down in spite of the reduction in hours (which was equivalent to an increase in wages per hour) is when the worker works 12 hours a day it is the last four hours that are very tiresome. After a man has been working eight hours he is apt to get tired. We know that by personal experience.

Q. And accidents will happen?

A. Accidents will happen. After the change there was four hours less fatigue. That does not mean just one-third less fatigue. The twelfth hour is the worst and the eleventh the next worse and the last four hours are much more fatiguing than the preceding eight hours. Any efficiency engineer will tell you that. Any psychologist will tell you that. Now as a result of that change the worker not only got tired less, but he rested four hours more. That should not be lost sight of. It is a difference of four hours, but it is equivalent to 12 hours more to the worker in being less tired, and in the next place resting more, and the result was when he came to work the next morning he was bright and able to watch the paper and there were less breakdowns and the result was great reduction in the cost of production. (P. 2788.)

New York. Senate Report No. 43. Fourth Report of the New York State Factory Investigating Commission, February 15, 1915.

S. EQUAL PRODUCTION IN LESS TIME.¹

Workmen in a Cleveland factory have been for some time turning out the same amount of product in nine hours per day that they did formerly in ten; and the hours are now to be further reduced to eight on the guaranty of the men that there will still be no reduction in output. This interesting test of comparative production is being made by the American Multigraph Co. During and after the war period this company operated its plant on a ten-hour schedule. Last November the hours of work were reduced to nine, and the company found that its employees did as much work in nine hours as in ten, and that it had lowered its production costs on some items when operating on a shorter schedule. Says a contributor to *The Iron Age* (New York):

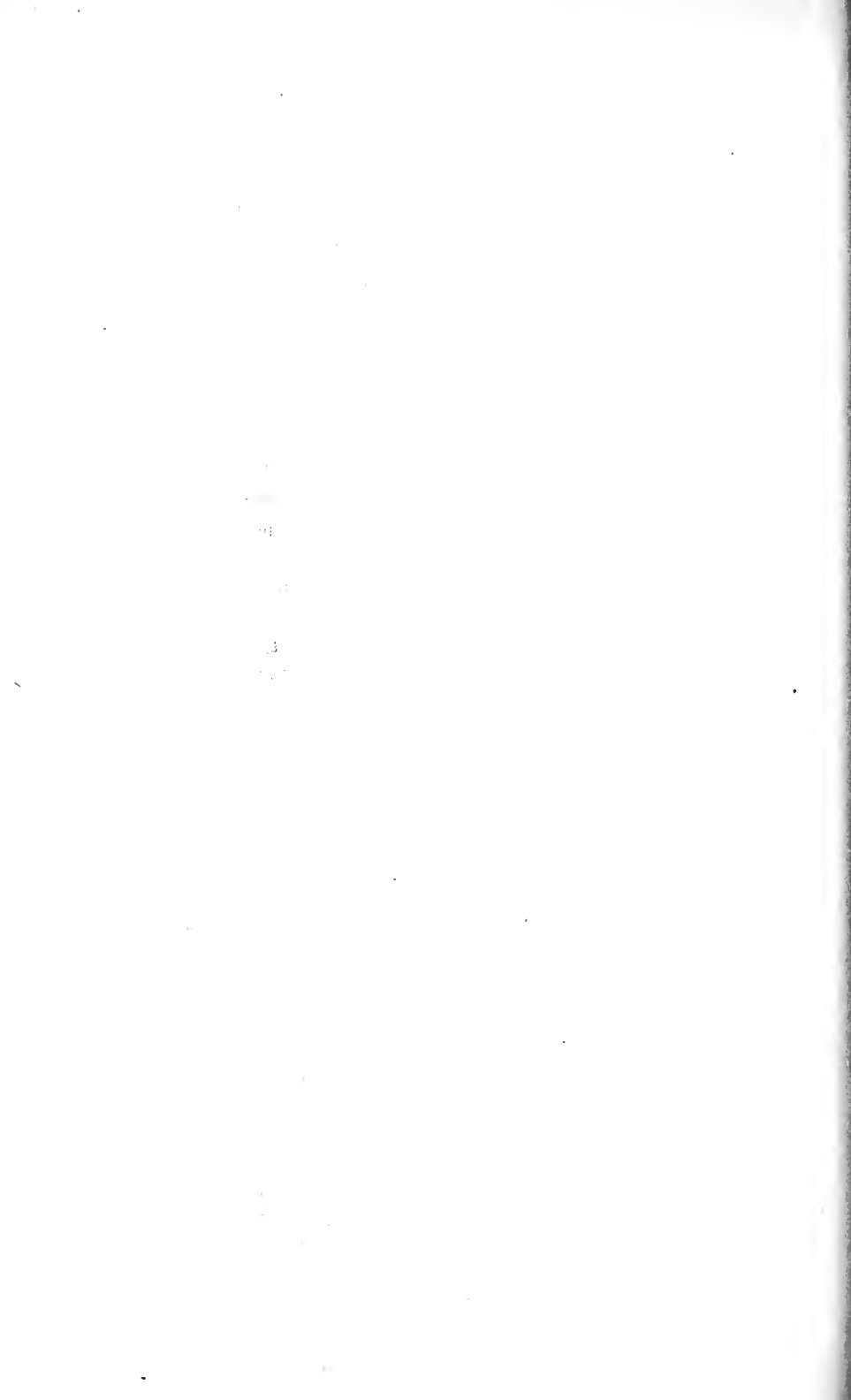
"Recently the employees through their congress asked that the work-day be reduced to eight hours and a shorter day was approved by the senate, composed of officers of the company and heads of departments. The men through their congress guaranteed that production under the eight-hour day would equal that set for ten hours, and have agreed to go back to nine hours at the same daily wage if after a six-months' test records show that production is not up to the guaranteed mark.

"The company agreed to the plan because its policy is to pay for production and not for hours of work, even though a large share of its employees are still working at day-rate. One factor that led the company to agree to a further reduction in the working hours

without a change in its day-rate was the excellent showing the employees have made while working nine hours. Comparing production under a nine-hour day in 1920 with a ten-hour day in 1914, the company found that, taking 25 principal products as a basis, its employees produced these products in 31 per cent less time during the shorter working-day. The improvement in production is attributed entirely to greater efficiency on the part of the men, and no part of it is credited to any change or improvement in manufacturing process. It will be noted that the comparisons are made with a pre-war period of 1914, and before the period of industrial unrest that has resulted in a noticeable slackening in work in many plants, and that the standards for work set for 1914 will be used as a basis for determining whether the employees make good on their guaranty to do as much work in eight hours as they formerly did in ten hours.

"The eight-hour day was put in effect May 10 and records of operation will be compiled every month during the six-month test period. The working hours will be from 7.30 A. M. to 4 P. M., except on Saturday when the plant will close at noon. Piece-work rates will be unchanged. Piece-workers working overtime will be paid time and a half of their day-rate for the time lost because of the lunch period. However, no lunch-time will be allowed until the overtime has amounted to two hours in excess of the regular day. The night force will stay on a ten-hour schedule, but their hourly rate will be changed to agree with the new hourly rate of the day employees and a 20 per cent bonus for night work will still be paid. Time and a half will be allowed for overtime over eight hours and for Saturday afternoon. However, overtime work is first to be taken up with a joint committee of the senate and congress before being authorized, this giving the committee a chance to determine whether overtime is necessary because the men are not keeping up production or for other reasons."—From *Literary Digest*, June 19, 1920.

III. THE EIGHT-HOUR DAY IN RELATION TO
HEALTH AND EFFICIE NYC.



III. THE EIGHT-HOUR DAY IN RELATION TO HEALTH AND EFFICIENCY.

Introduction.

There is no longer any question that the health of the worker is fundamental to his own efficiency, to the well-being of his family and of his community, and to the productivity and profitableness of the industry in which he contributes his mental and physical labor. The modern employer is thoroughly committed to this principle, not only as the result of humanitarian considerations, but as a matter of sound business.

Upon this basis every condition under which the wage-earners work is being subjected to scrutiny as to its actual or possible effects upon the physical and mental health of the worker. The length of time a man can continue profitably at work without rest is probably the most important question to which an answer is sought. It is known that the fatigue which follows excessive working hours may become chronic and result in general deterioration of health. While it may not result in immediate disease, it undermines the vitality of the worker and leads to general weakness, anæmia of premature old age. Continuous overexertion has proved even more disastrous to health than a certain amount of privation; and lack of work in industrial crises has entailed less injury to health than long-continued overwork. The excessive length of working hours, therefore, constitutes in itself a menace to health.

Overfatigue from excessive working hours not only renders overtaxed workers susceptible to general and infectious diseases; it predisposes them effectually to more subtle nervous disorders, especially neurasthenia in its various forms.

Neurasthenia and other nervous diseases are due to overstrain of the nervous system. Since the central nervous system regulates all the vital functions, nervous exhaustion or neurasthenia may affect all organs and functions of the body.

Intense and long-lasting fatigue is a characteristic of the disease. Disorders of the heart, circulation, the special senses and the digestive apparatus are common symptoms.

These are facts of scientific knowledge and actual experience. The numerous experiments, tests, results of scientific investigations and observations cannot be presented in a brief exhibit, but a few authoritative statements are given for the purpose of suggesting some of the fundamental physiologic principles involved.

1. THE PHYSIOLOGICAL PRINCIPLES INVOLVED.

The physiological principle which underlies the question of the proper length of the working day has been stated in a few words by the United States Public Health Service as follows:

“Work performed by any of the body cells produces waste products and other changes in those cells. Up to a certain limit work, into the resulting cell changes, is beneficial and improves the physical condition; but when work is excessive, too long prolonged, or too fast, the waste products begin to accumulate, the physiologic changes fail to occur, and if not properly rested the cells are damaged.”—*Public Health Bulletin* 76, *U. S. Public Health Service*, 1916, p. 10.

The above statement may be accepted as a clear-cut summarization of the facts in non-technical language. The literature on industrial hygiene and on the effect of overexertion upon the human organism affords a multitude of facts and conclusions which corroborate this statement. It has been authoritatively proven by experiment and experience that overfatigue leads to a breaking down of the muscular and nervous system, and results in loss of health and the power of self-restraint.

To the above brief statement may be added one other particularly definite exposition of the physiologic principle involved. The statement is taken from a paper by Dr. L. Duncan Bulkley, and in part is as follows:

“Excessive fatigue when neglected leads to a depression of vital powers to such a degree that recuperation is not possible under a continuance of the same conditions of life and work; indeed, when these are persisted in there is a continued lowering of vitality, so that each day one is less able to bear the exhausting fatigue, and thus a vicious circle is formed, often ending in a complete breakdown. True, this is often not recognized for a while, but the individual, finding each day’s work harder, exercises more and more will power, and, like a hard master, forces the unwilling slave to do work, physical or mental, with increasing disability until a breakdown occurs.

“Few grasp sufficiently the fact that lowered vitality leads to many diseases which either shorten life or develop invalidism. Surrounded as we are by multitudes of micro-organisms, many of which are beneficent and many injurious, a full vitality with active metabolism makes proper use of those favorable to life, but succumbs to those which are harmful. We all know that the tubercle bacillus is almost omnipresent, and pathologists state that every autopsy can show evidence of some slight invasion by this micro-organism, and yet relatively few come under its full influence and develop signs

which can be recognized as active tuberculosis; and we all recognize now that those who are thus affected are those who suffer from lowered nutrition, often caused by prolonged and excessive fatigue. The same may be said in regard to pus cocci and many other microbes, and nature has provided phagocytes, which in healthy blood continually guard us against their harmful influence, but which fail in this duty when the vital system is lowered by excessive fatigue, either physical or mental." (P. 47.)

Industrial Medicine. Papers and discussions presented at the 39th Annual Meeting of the American Academy of Medicine, 1914. Fatigue as an Element of Menace to Health in the Industries. L. DUNCAN BULKLEY, A. M., M. D., Physician, New York Skin and Cancer Hospital, Consulting Physician, New York Hospital, etc., New York City.

A detailed technical discussion of the chemical nature of over-fatigue would be beyond the scope of this brief presentation, but the relation of chemical changes caused by overexertion and their toxic effects to disability, particularly occupational diseases, has been succinctly stated by Dr. E. R. Hayhurst, Director of the Division of Occupational Diseases, Ohio State Board of Health, as follows:

"Fatigue is one of the most common causes of occupational disability. This is a prime cause of the fact that bodily development in factory classes remains inferior to that in other social classes. Fatigue is defined as loss of irritability and contractility brought on by functional activity. The sensation of fatigue is due to the accumulation of waste products within the system called fatigue poisons (definite chemical substances) and fatigue toxins. The poisons are acidic in character. A fatigued muscle is acid in reaction, while one at rest is alkaline. Of the poisons, leucomaines are one type and are similar in action to ptomaines obtained from putrid meats. The presence of such substances is easily demonstrated, as for instance, in the dog experiment in which, a few cubic centimeters of blood removed from the veins of a dog, which has been run till fatigued, and then injected into another dog, not previously exercised, within a few moments causes symptoms of fatigue to appear in the second animal; even paralyzing effects and, finally, death may follow after a period of extreme exhaustion. There are many other ways of demonstrating the presence of this fatigue substance. Fatigue poisons do not accumulate in the system if time intervals are sufficient for the circulation to counteract, and remove them between muscular efforts. These symptoms, when they appear, are usually not more prominent in the particular muscles or parts used than throughout the system in general. The brain, which is the source of motive power, always suffers in fatigue, no matter what part of the body is overworked." (Pp. 33-34.)

Industrial Health-Hazards and Occupational Diseases in Ohio. E. R. HAYHURST, A. M., M. D., Director, Division of Occupational Diseases, Ohio State Board of Health, 1915.

2. THE EFFECTS OF OVERFATIGUE UPON HEALTH.

The effects upon the human organism of overfatigue are not only immediate effects, but they lead to later injurious results. Upon the well-established principle that any cause which weakens the muscular and nervous system also renders the individual less resistant to infectious and other diseases, a higher morbidity and mortality rate may be expected among persons who have been subjected to overfatigue.

The principle has been stated in numerous writings by scientific authors, and it would be impossible to present even a summarization of what has been written on this particular point. Three typical statements, however, may be cited, and are presented in the following paragraph:

“From the great body of the factory labor which goes to the provision of our national income, the first great human cost that emerges is the burden of injurious fatigue which results from muscular or nervous overstrain, and from the other physical and moral injuries which are the natural accompaniments of this overstrain. (P. 63.)

“To this account of the physical costs of excessive work in muscular and nervous waste must be added the greater liability to accidents and the greater susceptibility to industrial and non-industrial diseases which fatigue entails. (P. 67.)

“That over-fatigue connected with industry is responsible for large numbers of nervous disorders is, of course, generally admitted. The growing prevalence of cardiac neurosis and of neurasthenia in general among working people is attested by many medical authorities, especially in occupations where long strains of attention are involved. But the general enfeeblement and loss of resistance power to disease germs of all kinds are even more injurious consequences of over-exertion. Many experiments attest the fact that fatigue reduces the power of the blood to resist bacteria and their toxic products.” (Pp. 67-68.)

Work and Wealth: A Human Valuation. J. A. HOESON. New York, The Macmillan Company, 1914.

3. FATIGUE AND DISEASE.

“The connection between fatigue and disease is probably much more frequent and close than is usually recognized. To disease fatigue stands in the relation of both cause and effect. That it may be a factor in causing disease is, indeed, often believed, and this belief is justified by laboratory experiments. Thus, it has been shown experimentally that of two groups of animals, the one resting and the other fatigued by muscular work and both inoculated by pathogenic bacteria, the fatigued animals exhibit a fall of the opsonic index and succumb to the disease in larger numbers. This

may best be interpreted as indicating that the resistance of the body to the action of bacteria is diminished by the metabolic changes involved in the fatigue processes. If this is true of one species of bacterium, it is probably true of others, and from the prevalence of the infectious diseases in the life of man it is obvious how important is the matter of avoiding undue fatigue." (P. 253.)

Diseases of Occupation and Vocational Hygiene. Edited by GEORGE M. KOBER, M. D., Professor of Hygiene, Georgetown University, and WILLIAM C. HANSON, M. D., Massachusetts State Board of Health. P. Blakiston's Son & Co., Philadelphia, 1916. *Fatigue and Occupation.* FREDERIC S. LEE, New York.

4. THE INCREASING DEATH RATE AMONG OCCUPIED MALES.

While no statistics have as yet been secured which accurately measure the precise effect of overfatigue as a predisposing cause of disease, the well-established relation between overfatigue and disease must be considered in interpreting significant differences in the mortality rate from certain diseases among men who are engaged in industry and among men who are engaged in agricultural pursuits. These differences have been commented upon frequently in the statistical and medical literature and, in the opinion of authoritative students, are of vital importance as indicating the direction in which preventive measures should be taken.

(a) An analysis of the mortality statistics for the registration area of the United States, which was made by Dr. E. R. Hayhurst, director of division of occupational diseases, Ohio State Board of Health, is presented below.

MORTALITY AMONG OCCUPIED MALES.

	Those in agricultural pursuits.	Those in 131 trades and callings.
	Of all deaths.	Of all deaths.
Deaths from preventable causes (6/7 are diseases)	% 27.4	% 43.0
Deaths from degenerative diseases (under 70 years of age)	26.5	3.10
Total deaths after 70 years of age..	35.9	13.4

In the above "Occupied Males" includes professional persons, officials, proprietors, those in domestic and personal services, as well

as those we term real workers, viz., in trade and transportation, manufacturing and mechanical pursuits, mines, quarries, etc.

Dr. Hayhurst's comment is as follows:

"Deaths occurring under 70 years of age from circulatory or heart diseases should be considered preventable in the vast majority of instances. In Ohio, in 1912, over one-sixth of all deaths were due to circulatory diseases and one-eighth of all deaths were due to organic heart disease alone. As a cause of death tuberculosis has been almost doubly outstripped by these chronic degenerative diseases, 58 per cent of which have occurred before 70 years of age, and 20 per cent of which have occurred before 50 years of age." (P. 13.)

b. No less an authority than President E. E. Rittenhouse, of the Life Extension Institute, has stated his conclusion to the effect that the strain of modern industry is resulting in the breakdown of the health and in premature deaths of American workers. Mr. Rittenhouse says:

"Evidence found in the mortality records indicates a marked decline in the power of American workers to withstand the strain of modern life.

"In the natural order of things, the human machine will wear out and life must end. But why should Americans wear out sooner now than they did a few years ago? Why have the chances of early death after reaching the prime of life increased?

"How do we know that this has happened? Because of the extraordinary increase in the death rate from the breaking down of the heart, arteries, kidneys and of the nervous and digestive systems.

"These are the diseases of old age. They are reaching down into middle life and below, and increasing there, and apparently at all ages.

"These slowly developing afflictions are not only reducing the working, productive period of life, but they are lowering the working capacity of the individual often before he realizes it, or recognizes the cause. They are responsible for accidents, for damaged machines, spoiled goods, and other costly errors. They are the concealed enemies of alertness, accuracy and efficiency. Therefore, every employer, small or large, is financially concerned in checking the ravages of this steadily advancing enemy.

Protecting the Human Machine. Condensed from an Address Before the Board of Trade of Washington, D. C., delivered by President E. E. RITTENHOUSE of the Life Extension Institute on April 27, 1915.

5. ADVANTAGEOUS EFFECTS UPON HEALTH OF 8-HOUR DAY.

"In the first place, while it is true that under the short-hours system men work harder while they are at their work than they do

under the long-hours system, it is also true that the short hours and hard work impose less strain on the body than long hours and dawdling, especially if the hours are passed in a hot, or dusty, or poisoned atmosphere, such as many trades are obliged to work in. The increased exertion during work hours has always been balanced, and more than balanced, by the restorative effects of the longer period of repose or recreation in good air. While the men do as good a day's work as they did before, they improve in health or vigor. After the Ten Hours' Act was six months in operation Mr. Horner reported that the work people had, many of them, told him they enjoyed better health than they used to enjoy; and their story was confirmed by managers and overlookers, who said there had been less sickness in the mills than before, one manager, who was personally unfriendly to the 10-hours day, expressing great surprise to find how much better his men were in health, and how much more vigorously they worked although their wages had sunk so low that many of them got scarce a bellyful of food. The effect of the Act of 1874 only repeated this experience of the Act of 1847. The textile workers again intensified their exertions, till they did their old day's work in the shorter term, and their intenser exertions have again in no way hurt their growth in bodily health and vigor. (Pp. 100-101.)

"Messrs. Brunner, Mond & Co., * * * write Messrs. Webb and Cox that 'The effect on the health and physique of the men of this change has been most beneficial,' and they supply some striking particulars to the Departmental Committee of the Home Office on the health of chemical workers. The figures of the sick club connected with the works show that during the summer quarter in 1889, before the introduction of the three shifts, the percentage of men who received sick pay was. 7.1, while during the same quarter of 1893, after the introduction of the three shifts, the percentage was only 5.1, making a reduction of 28.32 per cent. In 1889 the men attended by the doctor amounted to 10.12 per cent of the whole, but in 1893 it was only 5.1 per cent, showing a reduction of 49.6 per cent. (P. 105.)

"Indeed, the rate of mortality among miners in this country observes almost a strict proportion with the customary duration of their working day, being less in the short-hours districts than in the long-hours districts."

Eight Hours for Work. JOHN RAE, *London and New York, Macmillan & Co., 1894.* (P. 106.)

6. CONCLUSION OF W. B. DICKSON, FORMER VICE-PRESIDENT U. S. STEEL CORPORATION.

"In my judgment a large proportion of the steel workers who, from early manhood, work twelve hours a day, are old men at forty." (P. 376.)

The Survey. Vol. 31. *New York, Jan. 3, 1914.* Can American Steel Plants Afford an Eight-hour Turn? WILLIAM B. DICKSON, *Former Vice-President United States Steel Corporation.*



IV. THE SOCIAL IMPORTANCE OF THE EIGHT-HOUR DAY



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INTRODUCTION.

The eight-hour day is not merely a matter of importance to the individual worker and to his employer; it has a much wider significance. The worker is a citizen. Upon his intelligence, his health, and his chance for mental development rests in large measure the intelligence with which the affairs of the municipality and the state are conducted, the health of his family and of his descendants, the progress of the community and of the nation. Any measure which strengthens his self-restraint and elevates his enjoyments, which widens his opportunity for self-improvement and which stimulates his civic interest is a measure of national significance.

This vitally important phase of the eight-hour question was eloquently summed up by President McKinley during his service in Congress, and in a quotation by him of Cardinal Manning's words. It has also been emphasized by President Wilson. These quotations are as follows:

STATEMENT OF PRESIDENT MCKINLEY.

"The tendency of the times the world over is for shorter hours for labor; shorter hours in the interest of health, shorter hours in the interest of humanity, shorter hours in the interest of the home and the family. * * * Cardinal Manning in a recent article spoke noble words on the general subject, when he said:

"'But if the domestic life of the people be vital above all; if the peace, the purity of homes, the education of children, the duties of wives and mothers, the duties of husbands and of fathers, be written in the natural law of mankind, and if these things are sacred far beyond anything that can be sold in the market, then I say if the hours of labor resulting from the unregulated sale of a man's strength and skill shall lead to the destruction of domestic life, to the neglect of children, to turning wives and mothers into living machines, and of fathers and husbands into, what shall I say, creatures of burden? I will not say any other word—who rise up before the sun, and come back when it is set, wearied and able only to take food, and lie down and rest, the domestic life of man exists no longer and we dare not go on in this path.'"

Congressional Record, Vol. XXI, Part X, Pages 9,300-9,301, August 28, 1890. Remarks of Mr. McKinley upon the Eight-Hour Bill.

STATEMENT OF PRESIDENT WILSON.

In his remarks urging the Adamson Law, President Wilson set forth his reasons in general in justification of an eight-hour day for workers on public utilities, as follows:

"You know that we have been a legalistic people. I say with all due respect to some men for whom I have a high esteem that we have been too much under the guidance of the lawyers, and that the lawyer has always regarded the relations between the employer and the employee as merely a contractual relationship, whereas it is, while based upon a contract, very much more than contractual relationship. It is a relationship between one set of men and another set of men with hearts under their jackets, and with interests that they ought to serve in common and with persons whom they love and must support on the one side and on the other. Labor is not a commodity. It is a form of co-operation, and if I can make a man believe in me, know that I am just, know that I want to share the profits of success with him, I can get ten times as much out of him as if he thought I were his antagonist. And his labor is cheap at any price. That is the human side of it, and the human side extends to this conception, that that laboring man is a part of his employer. If he is a mere tool of his employer, he is only as serviceable as the tool. His enthusiasm does not go into it. He does not plan how the work shall be better done. He does not look upon the aspect of the business or enterprise as a whole and wish to co-operate the advantage of his brains and his invention to the success of it as a whole. Human relationships, my fellow citizens, are governed by the heart, and if the heart is not in it nothing is in it.

"Because a man does better work within eight hours than he does within a more extended day, and that the whole theory of it, a theory which is sustained now by abundant experience, is that his efficiency is increased, his spirit in his work is improved, and the whole moral and physical vigor of the man is added to. This is no longer conjectural. Where it has been tried, it has been demonstrated. The judgment of society, the vote of every legislature in America that has voted upon it is a verdict in favor of the eight-hour day.

"The reasonable thing to do is to grant the eight-hour day, not because the men demand it, but because it is right, and let me get authority from Congress to appoint a commission of as impartial a nature as I can choose to observe the results and report upon the results in order that justice may in the event be done the railroads in respect of the cost of experiment."

1. THE MORAL SIGNIFICANCE OF THE EIGHT-HOUR DAY.

Scientists and students of social questions are agreed upon the point that over-fatigue, whether caused by excessive working hours or other conditions, inevitably leads to a weakening of moral restraint. According to numerous observations, not only is moral restraint gradually broken down, but the over-taxed person tends to enjoy less and less those pleasures and interests which require attention and which, under ordinary conditions, stimulate mental activity. He responds most readily to coarser pleasures and excitements.

a. *Fatigue and Lessened Self-Control.*

"Among the higher functions of certain brain tracts is that of inhibition. These tracts are called 'inhibitory centres,' and their function is like that of brakes on a wagon, or like the governor on an engine, or like that of a coachman who holds a tight rein when his spirited team is going down hill or along a crowded street. The effects of fatigue on these centres is seen very quickly in any prolonged effort. * * * In general, self-control is lost, and the lower, the baser, and the more selfish faculties of our nature run riot. * * * In short, the fatigued person is very sure to fly off on a tangent in one or more lines. In other words, his inhibitory centres have ceased to act, he has little self-control. Most crimes of all kinds are committed at night, when men are tired, ugly, and possessed of little judgment, comparatively, and less consciences. * * * The rested boy or man can resist temptation, but the tired one cannot. His will and conscience are both too weak. (P. 41.)

"The facts of fatigue settle scientifically and beyond appeal some social and religious questions. Dr. C. F. Hodge, of Clark University, proved that, while eight or ten hours of rest restored the tired nerve cells to a condition nearly normal, at least thirty or thirty-six hours is needed for an absolutely complete recuperation. That means that a Sabbath, giving so long a rest, is a necessity, if man is to do his best work physically and intellectually or live at his best esthetically, morally and religiously." (Pp. 51-52.)

Sixty-fifth Annual Meeting of the American Institute of Instruction. The Relation of Fatigue to Social and Educational Progress. HENRY S. BAKER, Ph. D. Boston, 1895.

b. *Fatigue and the Choice of Recreation.*

The results of nation-wide prohibition on the character of recreation are still, in the opinion of many, a debatable question. But the opportunity for debasing pleasure will be afforded as long as there is a demand for it—whether prohibition is effected or not. As two eminent English writers have expressed it.

“If you compel men and women to work so long each day that they have not time to think, they will remain non-thinking animals. Under the present conditions of industry there are in all advanced industrial countries thousands of men and women who never have a moment’s leisure until completely exhausted to sit down quietly and take stock of their position. All the time that is left to them between bed and work is spent in the pleasures that most immediately appeal to an overwrought body. The gin palace, with its glaring lights and strong spirits, the music-hall, with its silly songs and maudlin sentiments, are the direct results of a system of overwork that prohibits mental leisure.” (P. 151.)

The Eight Hours Day. SIDNEY WEBB and HAROLD COX. London, Walter Scott, 1891.

2. SHORTER HOURS AND THE OPPORTUNITY FOR WHOLESOME RECREATION AND HOME LIFE.

"Shorter hours of work are a natural and beneficent outcome of the forces of civilization. The great mass of men need not only an increase of income, but an increase of leisure—leisure for rest, for play, for education, for happier and higher living. No doubt leisure is sometimes abused; but in the main it is a needed means of raising the sum of happiness. Therefore, the short hour movement should have the sympathy of every friend of humanity." (P. 14.)

National Civic Federation Monthly Review. Vol. I. October 15, 1904. The Shorter Work Day. F. W. TAUSSIG, Harvard University.

"A law should be passed in every state that would require all continuous industries to operate on the three shift system.

"I have had practical experience in paper-making. I worked for years in a paper mill when I was a boy, both on a thirteen-hour shift, and on the eleven-hour shift, nights and days. I know from practical experience what it means to work thirteen hours from 6 o'clock at night until 7 o'clock the next morning one week, and from 7 in the morning till 6 at night, 11 hours, the next week, year in and year out. I know that this sort of work is intolerable and I speak with deliberation and with knowledge. It is intolerable, not only because of the number of hours, which, under any condition of labor would be excessive, but also because in many paper mills the conditions of work are severe and trying. * * *

"I want every man and woman who reads this to think what such long hours would mean to him or to her in their home life. What time can a man who works thirteen hours each night have with his family? What time can the same man have during the next week when he works eleven hours each day with no time off for meals?

That such hours are intolerable no fair-minded person can deny. In many ways it is as dangerous to the welfare of the nation as was the slavery of the black race; the men employed for such long hours are taxed beyond their strength and the physical exhaustion, day after day, week after week, soon results in a lower standard of life. No time or energy is left for the development of the healthy home life essential to the welfare of the nation.' (P. 377.)

The Survey. Vol. 31. New York, January 3, 1914. Three Eight-hour Tours in the Paper Mills of America. CHARLES SUMNER BIRD, President F. W. Bird & Son.

3. THE GREATER OPPORTUNITY FOR HAPPINESS.

"But from the standpoint of the individual worker the economy of a shorter work-day has a double significance. We have seen that it more than proportionately diminishes his personal cost, by cancelling the last and most costly portion of his work-day. But it also increases the human utility which he can get out of his wages. A day of exhausting toil entails the expenditure of a large portion of his wage in mere replacement of physical wear and tear, or incites to expenditure on physical excesses, while the leisure hours are hours of idleness and torpor. A reduction of the work-day will, by the larger leisure and spare energy it secures, reduce the expenditure upon mere wear and tear, and increase the expenditure upon the higher and more varied strata of the standard of comfort. * * * Take an extreme case. A man who toils all day long at some exhausting work, and goes home at night too tired for anything but food and sleep, so as to enable him to continue the same round tomorrow, though he may earn good wages from this toil, can get little out of them. If he were induced to work less and leave himself some time and energy for relaxation and enjoyment, he would get a larger utility out of less money income.

"The matter, however, does not need laboring. It is evident that many modes of consumption depend in part, for the pleasure and gain they yield, upon the amount of time given to the consuming processes. It would be mere foolishness for a tired worker to spend money upon improving books which he had not the time and energy to digest. Shorten his hours, leave him more energy, such expenditure may be extremely profitable. Even the enjoyment and good of his meals will be increased, if he has more time and energy for wholesome processes of digestion and for the exercise which facilitates digestion. And what is true of his food will hold also of most other items in his standard of consumption. No consumption is purely passive: to get the best utility or enjoyment out of any sort of wealth, time and energy are requisite. The greater part of a workman's income goes to the upkeep of his home and family. Does the normal work-day in our strenuous age permit the bread-winner to get the full enjoyment out of home and family? He belongs perhaps to a club or a co-operative society. Can he make the most of these opportunities of education and of comradeship, if his daily toil leaves him little margin of vitality? Most of the growing public expenditure which the modern State or City lays out upon the amenities of social life, the apparatus of libraries, museums, parks, music and recreation is half wasted because industry has trenched too much upon humanity." (Pp. 235-236.)

Work and Wealth: A Human Valuation. J. A. HOBSON. *New York. The Macmillan Company.* 1914.

4. ENCOURAGEMENT OF CITIZENSHIP.

"The wear and tear upon human life steadily increases under modern methods of production. This is the third reason urged for the adoption of the eight-hour day. If men are to stand as heads of families, as electors, and even as operators of machines, they must have time for rest, for education, and for family life. The responsibility of government increasingly falls upon the working classes in a democracy. Shorter hours of labor alone can give the worker the leisure for careful study of the present-day problems thrust more and more upon the electorate for decision." (P. 523.)

"Not, then, as a means of employing the 'reserve army of industry' as the unemployed are sometimes called, is the eight-hour day to be advocated, but rather as a means of giving to men a wider interest in life, the possibility of greater culture and the surety of education commensurate with the problems now forced upon our democracy for solution. It is not, then, as a private measure that this movement is acceptable, but as a public necessity." (P. 526.)
American Journal of Sociology. Vol. 8. 1903. *The Social Effects of the Eight-Hour Day*. FRANK L. McVEY. University of Minnesota.

5. THE EIGHT-HOUR DAY WORKER A BETTER CONSUMER.

"No recognized authority today combats the proposition that the condition of the laborer has improved with every reduction in the hours of daily service that has up to this time been made. Nobody is disputing that he has become a better consumer with each reduction. * * *

"Economists contend with great plausibility that the shorter day results in an increase of wages without an increase in price, as consumption enlarges production, and the larger the scale of production the cheaper the given article is produced; that the laborer, when he has the leisure resulting from the shorter hours, has new aspirations, ambitions and a grater personal self-respect, and, as before stated, wants a better house, better furniture, better clothes, better food, and becomes a great deal better consumer." (Pp. 8-9.)
United States Congress. House Report, No. 1793 (4405). Hours of Laborers on Public Works of the United States. Report from the Committee on Labor. 57th Congress 1st Session. 1901-1902.

6. THE SHORTER WORKING DAY AND AMERICANIZATION.

The large proportion of foreign-born workers, particularly those of comparatively recent immigration, in the anthracite field emphasize the importance of any condition which will promote Americanization. The length of the working day is a factor of vital importance in this respect, since it affects the opportunity of Americanization.

This point was stated concisely and forcibly in the brief for the State of Oregon before the Supreme Court of the United States on the question of the constitutionality of the Oregon "Ten-Hour Law."

"Throughout the country there is increasing recognition that the prime necessity for the immigrant is Americanization, that is, opportunity for acquiring the ability to speak and read the English language, and to become acquainted with American institutions.

"Americanization is the paramount need not alone for the immigrant but for the very existence of the Republic. Unless the millions of immigrants present and future are made an integral part of the population, understanding our institutions, sharing the standards and ideals of the democracy, the nation itself is imperilled.

"No man can become a naturalized citizen unless he can speak English. Learning English is therefore the key to citizenship. It is indispensable for the adoption of American standards of living; for a participation in the life of the community. Ignorance of the English language is the greatest obstacle to industrial advancement. It prevents the distribution of congested immigrant populations. It increases the dangers of industrial accidents, injuries and occupational diseases, owing to the immigrant's inability to understand orders or hygienic regulations printed or orally given in industrial establishments.

"The growing recognition of the need of Americanization has resulted in a country-wide movement to provide evening schools to teach English and give special instruction on American institutions. Federal, State and city authorities are urging increased appropriations for these special facilities.

"Obviously this whole program of Americanization is impossible unless sufficient leisure is provided after working hours to enable the workers to take advantage of the opportunities offered.

"The task of teaching adult foreigners a new language is rendered almost hopeless unless they can come to be taught with some freshness of mind. The project of Americanization is defeated when working hours are so long that no evening leisure is left or the immigrant workers are too much exhausted to make use of it."

The Case for the Shorter Work Day. (Pp. 550, 551.)

7. THE EIGHT-HOUR DAY AND NATIONAL HEALTH.

The Committee of One Hundred on National Health, in its well-known report, said :

"It is not maintained that in all cases productivity will be as great in eight hours as in nine. Cases to the contrary could also be cited. The point to be insisted upon is not that it is profitable to an employer to make the work day shorter, for often it is not, but to show that it is profitable to the nation and the race. Continual fatigue is inimical to national vitality, and however it may affect the commercial profits of the individual, it will in the end deplete the vital resources on which national efficiency depends." (P. 46.)

Committee of One Hundred on National Health. Bulletin No. 30. July, 1919. Report on National Vitality, Its Wastes and Conservation. Prepared for the National Conservation Commission. PROFESSOR IRVING FISHER, Yale University. Washington, Government Printing Office, 1909.

Former Secretary of Commerce Redfield, himself an employer, made the following statement in a recent book :

"If American men and women are our most valuable possessions—more valuable, for example, than material wealth—then the getting of material wealth at the cost of injury to men and women becomes an economic mistake, a national injury as well as an ethical wrong. The price is too high to be paid. The nation cannot afford to waste its best for anything less valuable. If a great State loses its sense of right values so far as to refuse to protect its men and women from excessive hours of labor, then that State has become disloyal to its best self; is wasting its finest values, and its action or its inaction means the loss of that which it should be its chief function and pride to preserve and which it needs more than all else. (Pp. 9-10.)

"The cry for shorter hours of labor * * * is a normal protest against the fatigue that destroys. (P. 12.)

"In the doing of this mighty, multiform and complex task, those who would conserve the best value in America take both an advanced and a progressive position. They do not hesitate to teach the doctrine that the people who work in our mills are of more value to the State than the product of those mills. * * * They do not hesitate to say that hours that overstrain the nerves and muscles of our people injure us all, and that a sufficient rest is as much a reasonable right as is a living wage." (Pp. 13-14.)

The New Industrial Day. WILLIAM C. REDFIELD. New York. The Century Co. 1912.

8. THE GENERAL BENEFIT TO SOCIETY OF AN EIGHT-HOUR DAY.

Report of the Committee of Stockholders of the United States Steel Corporation. April 15, 1912.

"To ascertain the number of employees of the Steel Corporation working on a 12-hour schedule (exclusive of officers, managers and clerical forces), we have examined the records of 175,715 men. Of this number we find 45,248, or 25¾ per cent, are at present working 12 hours per day. * * * The actual physical labor involved in many of the positions is today much less than in former years, this being especially true of the open hearth and blast furnaces, where the intermittent character of the work is such that there is less call for actual expenditure of physical energy than in many of the 8 and 10-hour positions.

"Notwithstanding this fact, we are of the opinion that a 12-hour day of labor, followed continuously by any group of men for any considerable number of years, means a decreasing of the efficiency and lessening of the vigor and virility of such men.

"The question should be considered from a social as well as a physical point of view. When it is remembered that the 12 hours a day to the man in the mills means approximately 13 hours away from his home and family—not for one day, but for all working days—it leaves but scant time for self-improvement, for companionship with his family, for recreation and leisure. It is important that any industry be considered in its relation to the home life of those engaged in it, as to whether it tends to weaken or strengthen the normalness and stability of family life. By a reasonable conserving of the strength of the working population of today may we be best assured of a healthy, intelligent, productive citizenship in the future." (Survey. Vol. 28. Pp. 252-253.)

The National Civic Federation Review. Vol. II, No. 8. Jan., Feb., 1906. The first Annual Meeting of the New England Civic Federation, Boston, Jan. 11, 1906.

Marcus M. Marks, President, National Association of Clothing Manufacturers:

"There is another consideration which prompts the demand on the part of labor for a shorter workday; it is the greater desire for self-improvement.

"This has been encouraged by the advance in the public school of the system which affects our younger workmen in particular; also by the multiplication of popular free lectures, public libraries, cheap books and newspapers, etc., that have awakened in the workmen's minds the ambition to lead a better life, possible only in the enjoyment of a reasonable amount of leisure." (P. 8.)

Diseases of Occupation from the Legislative, Social and Medical Points of View. THOMAS OLIVER, M.A., M.D., F.R.C.P., *Medical Expert on the White Lead, Dangerous Trades, Pottery and Lucifer Match Committees of the British Home Office.* New York, Dutton, 1908.

“* * * It is held that no employer has the right to utilize the whole of the working part of a man's day, and thus deprive him of the leisure to which he as a human being is entitled. Since his whole nature has to be developed, it is claimed that the intellectual, moral and physical powers of man cannot be developed if the hours of employment are too long, the work too hard and of a grinding nature.” P. 11.)

Discussions in Economics and Statistics, Vol. II. FRANCIS A. WALKER, PH.D., LL.D. *The Eight-Hour Law Agitation.* New York, Holt. 1899.

“* * * I have small sympathy with the views so frequently, and it seems to me brutally, expressed, that the working classes have no need for leisure beyond the bare necessities of physical rest and repose, to get ready for the morrow's work; that they do not know what to do with vacant hours, and that a shortening of the term of labor would, in the great majority of cases, lead to an increase of dissipation and drunkenness. Is it our fellow-beings, our own countrymen, of whom we are speaking? It seems to me this talk * * * is the poorest sort of pessimistic nonsense. It is closely akin to what we used to hear about slavery being a humane and beneficent institution.* * *

“* * * We may well desire that somewhat more and much more, of leisure and of recreation should mingle with the daily life of our fellows than is now known to most of them. It is a pity, it is a great pity, that workingmen should not see more of their families by daylight; should not have time for friendly converse or for distinct amusements; should not have larger opportunities for social and public affairs. Doubtless many would always, and still more would at first, put the newly acquired leisure to uses that were lower than the best, * * * were even, in instances, mischievous and injurious.

“But the larger part of this would be due to the fact, not that the time now granted was too great, but that the time previously granted had been too small. * * * But such men, who might, it is conceded, become even worse men with more leisure, are not to furnish the rule for the great majority, who are decent, sober and careful, fearing God and loving their families.” (Pp. 383-385.)

Massachusetts Senate Documents No. 1. 1874. Address of Governor William B. Washburn to the Two Branches of the Legislature, January 2, 1874.

“Furthermore, the large majority of operatives in many of our mills are of foreign birth. What is to be done with them? How are we to protect ourselves from the ignorance that is generally their misfortune rather than their fault? How are we to educate them into unity of aspiration and purpose with native-born citizens? Shall we work them so many hours a day that they will have neither strength, interest nor time for becoming acquainted with

our institutions or our aims as a people? Or shall we, by shortening their hours of labor, and the establishment of evening schools, if need be, educate them, fit them for the duties of citizenship, and make them a part of ourselves? Unless something of this sort is done, while the census returns may show accumulation and enlargement, there can be no increase of living power. If we are to have in the future a healthful growth of the body politic, all these different elements of population must be blended into one harmonious whole. This will be a work of time and patience, I very well know, but we cannot go on indefinitely without some broader and deeper consideration than we have yet given, as a community, to the well-being of those among us from foreign parts." (Pp. 34-35.)

United States Congress. Senate Report No. 601. Hours of Daily Service of Laborers and Mechanics Upon Government Contracts. Report by MR. BORAH from the Committee on Education and Labor. Sixty-second Congress 2nd Session, 1912.

"Much has been said as to the inconvenience which would result to the employers in establishing the eight-hour day. Doubtless in some instances and to some extent this inconvenience, necessitating in some instances rearrangement, will follow. It is perhaps true that in some instances there may result a greater expense to the Government. But these things, we believe, are to be considered as of minor importance compared to the general benefit to be derived from an eight-hour day for laborers. We believe it means better work, better citizens and in the end far better for society. * * *

"No doubt some business concerns will suffer a temporary inconvenience or loss. But in the long run the loss will likely not be nearly so great as anticipated, and even if so, when weighed against the general good it ought not to prevail against such legislation." (Pp. 3-7.)

Massachusetts House Document No. 44. 1867. Report of Commissioners on the Hours of Labor. Minority Report. EDWARD H. ROGERS.

"The most prominent facts, conditions and results of the amelioration in time may be briefly stated thus:

"Greater relative vigor of the workman, in connection with the imperative obligation to reduce time from the exhausted portion of the day. Less loss of time in consequence of a sensible relief in the daily duration of labor. Greater healthfulness, especially during the summer season. A quicker return to labor, and a more rapid recovery of strength after sickness. The increased respectability of labor, which retains many in production. An approximate equalization of the day's work, which has largely contributed to diffuse employment over the year, and thus diminished distress during the winter season. Multiplied inventions, subdivisions in trades and, generally, a more intellectual and progressive impetus to production. Openings for the industrial classes in evening exercises of a religious,

reformatory, political and miscellaneous character. The noticeably increased influence of woman, closely connected with the fact that the home has gained time formerly devoted to the shop or counting-room." (P. 91.)

A Shorter Working Day. R. A. HADFIELD of *Hadfield's Steel Foundry Co., Sheffield.* and H. DE B. GIBBINS, M.A. *Methuen & Co., London*, 1892.

"Mr. Chamberlain * * * brushing aside all the usual talk about the interference of the State with adult persons of either sex, declared himself in favor of the principle once laid down by Professor Jevons, that 'the State is justified in passing any laws, or even in doing any single act, which, without ulterior consequences, would add to the sum total of happiness.' He further argued that an eight-hour law would, without any ill-effects, add immensely to the happiness of half a million miners in the United Kingdom. His opinion in favor of the bill was based upon the fact that short hours did not mean diminished output. (P. 22.)

"As in the past it has been clearly proved that the longer the hours of work the more the workers become mere machines, surely by a further shortening, which is proved to be absolutely necessary from the altered conditions of their surroundings, and apart from other necessary improvements, the general physique of the citizen will be improved and the nation will correspondingly benefit. (P. 115.)

"It is rightly claimed that the shortening of hours would lead to improvements mental and physical. Any action by which such change or improvement is effected, relating to some 8,000,000 of human beings in this country alone, is not to be lightly put on one side or trifled with. If effected, and if even a partial accomplishment of the end in view can be attained, the raising of such a considerable portion of the community must be of the highest benefit to the nation as a whole." (P. 116.)

A Shorter Working Day. R. A. HADFIELD of *Hadfield's Steel Foundry Co., Sheffield.* and H. DE B. GIBBINS, M.A. *Methuen & Co., London*, 1892.

"What concerns us to observe more especially in this chapter is the general effect of the reductions in the working day upon the working classes of Australia, in order that we may form thereby some idea of what would be the probable effect of a similar measure in England. * * * It is a remarkable fact that in spite of high wages and short hours, the consumption of spirits has greatly decreased in all the Colonies. Indeed, the active agitation of the publicans against the eight-hour day proves that they did not anticipate any increase in their profits through an increase in the comforts of the laborer's life. (Pp. 66-67.)

"It is the general opinion in Victoria that the habits of the workingman have been improved rather than deteriorated by the reduction of hours. * * * Intellectual as well as physical develop-

ment is a necessary consequence of shortening the working day. A man cannot, unless he be a besotted idiot, spend *all* his spare time in the pot-house (as some among us do vainly talk), but feels, as he acquires time for educating his mind and strengthening his body, that there are other pleasures than those of intoxication, and higher ideals than those of the tap-room. This has been the case, at any rate, in Victoria." (Pp. 74-75.)

Report of the United States Industrial Commission on the Relations and Conditions of Capital and Labor Employed in Manufactures and General Business. Vol. VII. 1900.

Testimony of Mr. Rufus R. Wade, Chief of District Police, Massachusetts:

"The question may well be asked, What has been the effect upon those operatives whose hours of labor have been lessened and to the children obliged to work in factories whose school privileges have been secured? The benefit to adults, comprising the laboring classes, by the reduction of the hours of labor has been to lift them up in the level of their manhood to thoughts of better things and to an organized demand for the same. It has given needed time for leisure to the operative, it has encouraged self-culture, it has afforded additional opportunity for recreation and has given the debating school, lecture-room and library an impetus in every city and manufacturing town in Massachusetts. The large circulation which the daily papers have obtained, in my opinion, is due in part to the fact that the laboring people are considering the questions of public movement.

"From an experience which has extended many years, not only through the medium of official duty, but from personal observation, I would say, with much confidence, that here has been a gradual yet steady change in the conditions once existing, which has operated to the benefit and well-being of the laboring classes in the opportunities for mental and social culture." (Pp. 79-80.)

9. AWARDS OF UMPIRE UNDER THE NATIONAL WAR LABOR BOARD.

The National War Labor Board in its review of various disputed questions, under the provisions of the proclamation of the President of the United States, and according to its announced principles, decided for a shorter working day in numerous instances.

Among such decisions, findings and awards were the following:

A—Award, Henry Ford umpire, *in re* International Association of Machinists, Local No. 818, *vs.* Wheeling Mold & Foundry Co., Wheeling, W. Va.:

"The National War Labor Board having agreed to submit to the

undersigned for his determination as umpire one single question, and that only, as follows:

"Should the National War Labor Board render a decision granting the demand of the machinists of the Wheeling (West Virginia) Mold & Foundry Co. for a basic eight-hour day, with time and one-half for overtime and double time Sundays and legal holidays?

"I, the said Henry Ford, do hereby answer the said question, Yes.

"I have reviewed the arguments and have given the question due thought and consideration, and have come to the conclusion stated, but do not deem it necessary to give my reasons unless your honorable board shall express a desire for the same.

"But I cannot refrain from expressing my very deep conviction that the straight eight-hour day is much better practice than the so-called 'eight-hour basic day' where the latter is continually and almost uniformly being practically exceeded in the number of working hours.

"My experience, and also my reason, teaches me that very few emergencies ever exist in a manufacturing business justifying the practice of exceeding eight working hours per day. The strain of eight hours is enough, and the hours should never be increased except under the most extraordinary circumstances. I can not dwell too much on this. For the good of the men, for the good of the employer, and for the general results, I would admonish those interested to adhere to the straight eight-hour day.

Respectfully submitted,

HENRY FORD, *Umpire.*"

B. Award, Mr. Otto M. Eidlitz umpire, *in re* Employees *vs.* Employers in Munition and Related Trades, Bridgeport, Conn.:

"In view of the fact that the evidence proves that an overwhelming majority of the firms, parties to this controversy, have through the operation of this principle, or voluntarily, conceded an eight-hour work day to the workers in their shops, it is only reasonable that those firms which hold a different opinion should comply with the will of the majority, and hence the eight-hour work day should be established in all shops and factories subject to this ruling. I am constrained to come to this conclusion, knowing the dissatisfaction and consequent interference with output that accrues in a manufacturing community where a basic work day has come to be generally recognized, but is resisted by a minority."

C. Award, V. E. Macy umpire, *in re* Marine Workers' Affiliation of the Port of New York *vs.* Railroad Administration, Shipping Board, Navy Department, War Department and Red Star Towing & Transportation Co.:

"B. Request for an Eight-Hour Day.

"The desirability of limiting the working day to eight hours has been recognized by Congressional enactment for all Government departments and on all direct Government contracts, by most State Legislatures and municipalities, by the Railroad Administration, and is the prevailing custom in many of our largest industries. Such a general acceptance of the principle of an eight-hour work day has not been obtained merely through sentiment. The nation has come to realize that its security demands that its citizens have a reasonable opportunity for family life, a reasonable amount of leisure, and a proper standard of maintenance. In view of this recognition the nation has the right to demand of its able-bodied citizens eight hours' service, for six days in the week, in some useful effort. Good citizenship requires that this service be rendered either voluntarily or for pay, according to the financial needs of the individual. The right to an eight-hour day carries with it the obligation upon the part of the individual to render better service during the fewer hours, for no right can be obtained without its corresponding obligation. * * *

* * * "Excessive hours are as dangerous to good citizenship as are noxious fumes to the health of workers. There may be certain occupations in which the straight eight-hour day is inherently impossible; if so the basic eight-hour day should be the standard and the pay for overtime regarded as a legitimate expense and a just charge to be borne by the public. It would seem, therefore, that the burden of proof that an eight-hour day is impossible in an industry lies on those who deny its practicability as well as upon those who request its installation."

D. Award, Judge Julian W. Mack umpire, *in re* Local No. 81, Iron Molders' Union *vs.* Iron Foundry Owners of Elizabeth, N. J.:

"Under the express principles governing this board in fixing hours of labor, due regard is to be given to the welfare, health and proper comfort of the workers. For the reasons set forth in the opinions of the umpires in other cases before this board and also most carefully expounded by Judge Alschuler in the Stockyard Case, these considerations fully justify the demands for the eight-hour day in the present stage of industrial development, especially in an industry like that here in question in which there is involved not only hard physical labor, but changing conditions of temperature under which the work is performed."

V. THE SHORT WORK DAY IN ENGLISH COAL MINES



V. THE SHORT WORK DAY IN ENGLISH COAL MINES.

ABSTRACTS FROM REPORT OF THE BRITISH COAL INDUSTRY COMMISSION.

The following quotations from the Report of the British Coal Industry Commission, March, 1919, concern the question of reduction of hours of labor in the mines. They are important as representing the conclusions of a majority of the commission after a thorough study of a vast quantity of evidence. The part of the report which deals with the short working day in Durham is of especial interest. The report of the commission reads, in part, as follows: *Recommendations of the Coal Industry Commission*—Interim Report dated 20th March, 1919 (Mr. Justice Sankey, Mr. Arthur Balfour, Sir Arthur Duckam and Sir Thomas Royden, Bart).

"We recommend that the Coal Mines Regulation Act, 1908, commonly called the Eight Hours Act, be amended by the substitution in the clauses limiting the hours of work under ground of the word "seven" for the word "eight," as from July 16, 1919, and subject to the economic position of the industry at the end of 1920, by the substitution of the word "six" for the word "eight," as from July 13, 1921. Certain adjustments must be made in the hours of the classes of underground workers specifically mentioned in the act."

Report.

"The popular title—Eight Hours Act—of the Coal Mines Regulation Act, 1908, is, to some extent, misleading. The bill as it originally left the House of Commons provided, after the lapse of 5 years, for eight hours exclusive of one windings, but the act as eventually passed provides for eight hours exclusive of both windings. In other words, the time both for lowering and for raising the workmen is outside the eight hours. As the result, many workmen are down in the pit for a very much longer period than eight hours, the average for the whole country being eight hours and thirty-nine minutes.

"The question of reducing the hours of colliery workers is a serious and difficult one; serious because it must admittedly reduce output; difficult, because it is a matter almost of impossibility to estimate how much it would reduce output.

"It would be, in our view, too dangerous an experiment in these circumstances to recommend a two-hour reduction at once, and we have had great difficulty in coming to the conclusion whether it would be better to recommend at once a true Eight Hours Act as originally intended, or the substitution, first of a seven hours, and later of six hours for eight in the present act.

"We have come to the conclusion that the latter is the better course, because it will not tempt persons to put men down and bring them up too rapidly—a system which might lead to more accidents.

"The reason for recommending the further reduction in July, 1921, is that we think we are justified in assuming that in two years the output should have reached, by the united efforts of all concerned, the amount of coal raised in 1913, namely, 287,000,000 tons.

"The Seven Hours Act will mean that the men are underground, taking the average, seven hours and thirty-nine minutes, and relying on the valuable and weighty advice of Sir Richard Redmayne, the Chief Inspector of Mines, the estimated decrease in output will be a little under 10 per cent per annum."

* * * * *

Conclusions of Messrs. Robert Smillie, Frank Hodges and Herbert Smith, Sir Lee Chiozza Money, Messrs. R. H. Tawney and Sidney Webb, with Reference to Hours.

"We find justified the claim to a substitution in the Coal Mines Regulation Act of 1908 of six for eight (making the future maximum working day underground vary from about six and a half hours in some mines to eight and a half hours in others, and averaging nearly seven hours). A corresponding shortening of the working day should apply to the surface workers.

Report.

"What the Act of Parliament calls an eight-hour day is, in fact, on an average nearly a nine-hour day, and in not a few cases appreciably more than a ten-hour day. The miners' claim is to substitute in the statute six for eight, a reduction of 25 per cent nominal, with such an advance in rates as will prevent a fall in earnings. Their actual day below the surface would then be, in the extreme cases, one of more than eight hours, and on the average, one of nearly seven hours.

"We are in the midst of a very general reduction of the hours of labor in nearly every industry. A reduction of hours to 47 per week has just come into force throughout the engineering and ship-building trades, whilst in some other industries a 40-hour week has been secured. It is significant that in the great industry of iron and steel manufacture, with which coal mining is so closely associated—often combined in the same industrial enterprise—a reduction of no less than 33 per cent, or proportionally much more than the miners are asking for, has just been conceded by the employers. In view of the specially arduous and hazardous nature of the work of the miner, we consider that the case for what is virtually a seven-hour day (called, for underground workers, a six-hour day), which differs only by a few minutes from the coal getting time already prevailing, with the full approval of the coal owners, among a considerable proportion of the hewers in Durham—cannot nowadays be resisted.

"We suggest, indeed, that the reduction of the hours during which each individual miner is exposed to his exceptional risk of accident is not only justified, but also a positive advantage to the nation. There are at present between 160,000 and 170,000 casualties in the mines each year—more in number than all those suffered by the Gallipoli expeditionary force—between 1,500 and 1,700 of them fatal, making the miners calling more hazardous than any other except that of seamen. In the ten years 1907 to 1916 actually 12,400 miners were killed in accidents occurring in the course of their work. We cannot confidently predict that a lessening of hours will, in itself, result in a diminution of accidents, because there has unfortunately been no study of the extent to which accidents in the mines are affected by the men's fatigue. In other industries that have been investigated, it has been proved that a reduction in working time leads to a more than proportionate lessening of accidents. But, however this may be in mining, each individual miner will certainly be a shorter time at risk. The miner, as it has been graphically put to us, is during the whole of his working time continuously 'in the trenches.' At present he goes on an average only six years before he meets with an accident, not necessarily fatal, but conspicuous enough to be reported, and severe enough to necessitate abstention from work for more than seven days. With a working day from bank to bank reduced by 28 per cent it may be anticipated that the underground worker will go without an accident, on the average, more nearly eight years than six. It must be counted, indeed, a distinct social advantage of a shorter working day in trades exposed to exceptional risk of accident that it permits, on an average, to every worker (and therefore to every father of a family) a longer uncrippled life."

Effect of Shorter Hours Upon Output in English Coal Mines.

The conclusions of the British Departmental Committee concerning the effect of the shortening of the working day upon output are pertinent. The committee presented statistics showing the output per employee per year from 1873 to 1905 in 33 mining districts. The committee used great caution in the interpretation of these statistics, as may be seen in the excerpt from its Final Report quoted below, but taking into consideration the evidence before it, its conclusions were as follows. (Final Report, p. 23.)

"The mineral statistics published by the Home Office show great variations in the annual product per person in the various districts, but upon comparing the output per person with the hours worked we cannot find a uniform relation between them. For example, although the hours of work in the Newcastle and the Durham districts are practically the same, the annual product per person underground is 433 tons in the latter district and only 370 tons in the former. It is clear, therefore, that the principal factor in the com-

parative productivity of the individual is the character of the seams worked. Nevertheless, after making allowance for this governing fact, and comparing like with like, so far as the evidence enabled us to do, *we cannot but conclude that an hour's work of the men employed in East and West Scotland, Northumberland and Durham, where the hours of work are shortest, is more effective than it is in Lancashire and South Wales, where the hours are longest. The tables do not show a uniform proportionate correspondence, but they do show some general relation between short hours and efficient work."*

Shorter Hours and Voluntary Absenteeism from Work in English Coal Mines.

That voluntary absenteeism is lessened under a shorter working day system was the conclusion of the committee. By absenteeism was meant "the voluntary absence from work on day when work is available." The committee, after carefully analyzing the report of absenteeism, said:

"The 6.6 per cent of available time lost by the voluntary absenteeism of individual men on the days when the pits are open to them to work we also look upon as a reserve which will, to a certain extent, be available for productive use under an eight-hour day, but it is impossible to say to what extent. As we have before explained, this percentage is not the measure of the total sum of absenteeism from work from all causes, which most witnesses who have given evidence on the subject have told us amounts to at least double this percentage; nor even does it represent the total voluntary absenteeism, but it measures the fluctuations between actual attendance on the best days and on the average days; therefore, a priori, it would not seem to be unreasonable to anticipate that a limitation of the hours during which it would be possible for the men to earn wages would lead to a better employment of those hours. If this assumption be correct, it might be expected that some confirmation of it would be found in Table XII of the Home Office tables for the United Kingdom, and that where the customary hours are least it would be found that the practice of absenteeism would be least. *Roughly speaking, we found this to be the case, and that in East and West Lancashire and North Wales, where the hours of work are longest, the practice of absenteeism is most prevalent, and in Scotland and Durham, where the hours, at any rate of hewers, who form the class which furnishes the greater part of the absentees, are shortest, the average attendance at work is best.* But we found that this rule does not work with uniformity, for, in Yorkshire, for example, where the hours are below the average, the percentage of absenteeism is nevertheless high, and after investigating the local evidence upon this point we came to the conclusion that the relative degree of the practice of absenteeism from work is not conditioned only by the relative length of the working day, but that in districts in which

other forms of employment than coal mining are open to other male and female members of the family, the miner permits himself to indulge in more days of repose than in districts where all the employment is at the pits and the family dependent solely upon the earnings of the miner.

"But after making due allowance for these local encouragements of the practice of abstention from work we find that the statistics that we have collected of absenteeism give grounds for believing that upon the whole shorter hours of the working day do at present conduce to greater regularity of attendance at the pits in the districts in which the shorter hours are worked."

"Although many of the witnesses who were opposed to the eight-hour day were not disposed to admit that any improvement in the regularity of the attendance of the miners for work in the pits would follow a reduction of hours, some of the most experienced managers of collieries were of the contrary opinion, and agree with the inferences drawn from the statistics of absenteeism we have collected, in believing that an improvement in this respect may be looked for. For example, Mr. Charles Pilkington of East Lancashire, where the rate of absenteeism is high, was of this opinion; Mr. E. M. Hann, manager of the Powell Duffryn Collieries of South Wales, stated his belief that 'if he (the miner) has such short hours in which to earn a living, he has got to be there every day, and it will influence his working pretty considerably.'"

Mortality in Relation to Length of Working Day in English Coal Mines.

A comparison of the accident mortality rates in districts where long and short hours were in operation led the committee, after giving some weight to the influence of other conditions, to conclude that, in general, the districts where the shortest hours were worked show an accident death rate below the average for the United Kingdom, while those where the longest hours are worked show a correspondingly high accident death rate. It should be pointed out, however, that this rule does not work with uniformity. Manchester and Ireland district, for instance, with long hours, shows the lowest accident death rate. This, however, seems to be an exception, and it must be borne in mind that these figures are for a single year. They are therefore more valuable as showing the tendency than as marking an absolute correspondence.

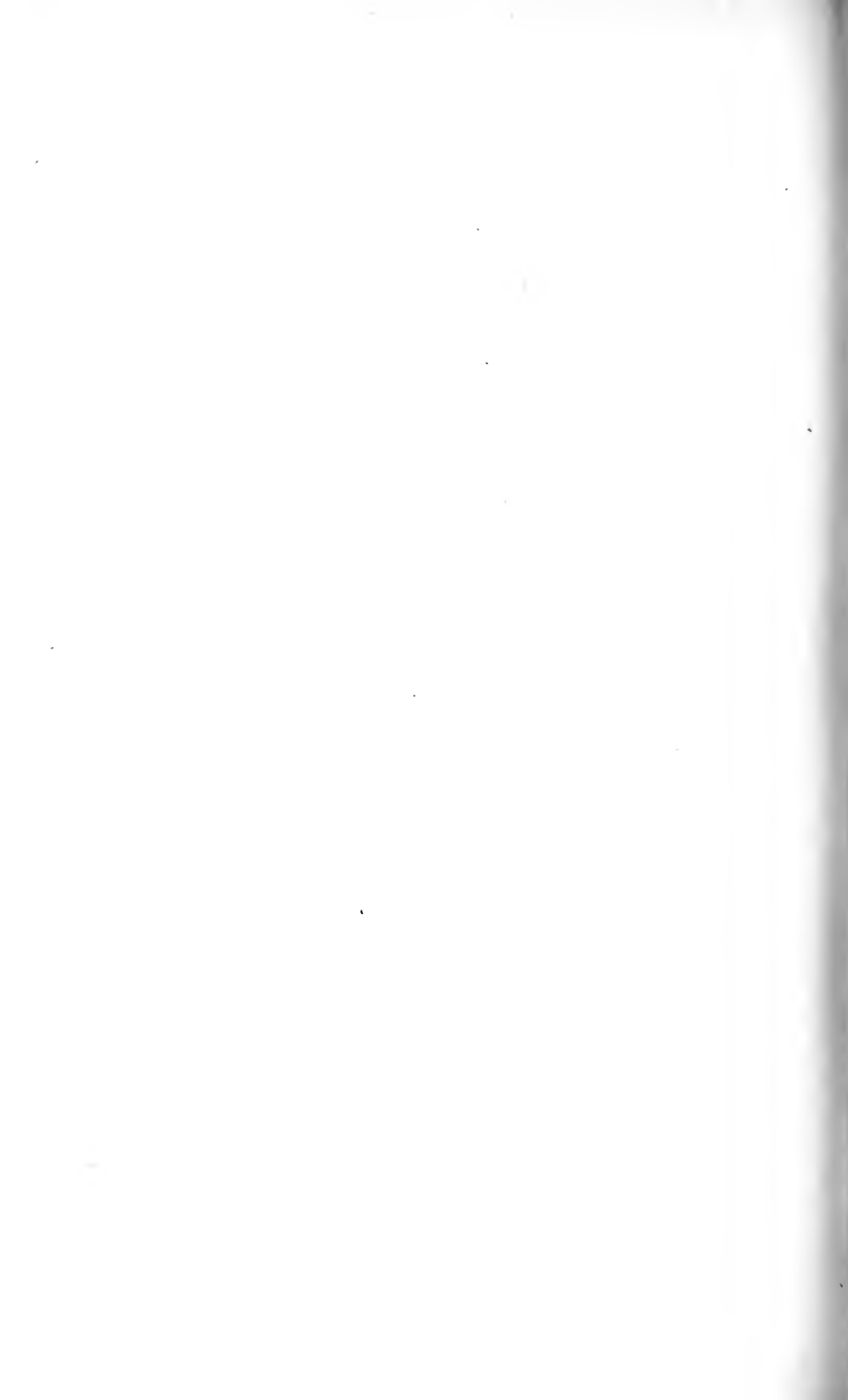
On the relation of the death rate from all causes, a table submitted by Dr. Tatham shows, in general, that the mortality from all causes among occupied colliers between certain ages is lower in Durham and Northumberland than in districts where longer hours

are worked. The committee sums up its findings under this head as follows:

“To bring the statistical information into direct relation to the subject of our inquiry, we must consider comparative tables of the mortality in the several mining counties in which the hours of work vary. The tables put before us show that of the counties for which separate statistics are available (in England and Wales) the lowest mortality (675) occurred in Derbyshire and Nottingham, counties in which the hours worked are below the average, and the highest (1.006) in Lancashire, where they are longest. The tables further show that in Lancashire, Monmouthshire and South Wales alone, the districts in which hours are longest, did the mortality from all causes exceed that of ‘all occupied males,’ and that it is only in Lancashire that there is an excess due to ‘other causes than accident.’

“The information available which would enable us to form a judgment as to the probable effect of the limitation of the working day upon the health of coal miners is of the scantiest nature, but, so far as the evidence goes, it tends to show that the standard of health of the workers is lowest in those districts where the longest hours are worked.” (Final Report, pp. 48-49.)

**VI. GENERAL STATEMENTS, RECOMMENDATIONS AND
DECISIONS ON THE SHORTER WORKING DAY**



VI. GENERAL STATEMENTS, RECOMMENDATIONS AND DECISIONS ON THE SHORTER WORKING DAY.

1. THE EFFECTS OF LONG HOURS ON MUNITION WORKERS IN GREAT BRITAIN DURING THE WAR.

a. *General Conclusions.*

The final report of the British Health of Munitions Workers' Committee,¹ appointed by the Right Hon. David Lloyd-George, said:

123. The evidence, however, showed that the long hours are open to certain serious objections:

(a) They are liable to impose too severe a strain on the workers;

(b) At any rate, after a period, the rate of production tends to decrease, and the extra hours produce proportionately little or no additional output; moreover, the quality of the output may be adversely affected during the whole period of work, and not only during the hours of overtime;

(c) A large proportion of the hours gained may be lost through broken time; the workers become exhausted and take a rest; sickness tends to increase, at any rate among the older men and those of weak constitution;

(d) They lead to an undue curtailment of the periods of rest and sleep available for those who have to travel long distances to and from work;

(e) The fatigue entailed increases the temptation of men to indulge in the consumption of alcohol; they are too tired to eat, and therefore seek a "stimulant."

(f) A very serious strain was imposed upon the management, the executive staff, and the foreman, both on account of the actual length of the hours worked and of the increased anxiety over the maintenance of the output and quality of the work; the staff cannot take days off like ordinary workers.

124. Whatever may have been the justification for the long hours worked, they undoubtedly imposed a severe strain on the workers, as evidenced by the following statements made by trades-union representatives:

¹Industrial Health and Efficiency: Final Report of the British Health of Munitions Workers' Committee. Reprinted as Bulletin No. 249 of the United States Bureau of Labor Statistics (February, 1919).

Some of his men had been working from 6 A. M. to 9 P. M. These hours were undoubtedly a severe strain and some men were just at the limit of their powers. They stayed away for a day or two to rest, but did not see a doctor if they could help it.

The men were reaching the "fed-up" stage. They were getting nervous and irritated through working long hours. They could not keep up their physical efficiency; he could see it in their faces. Men on overtime were more tired. They were liable to have time for only about five hours' sleep.

The excessive hours now being worked were too much for the men. They led to a diminished output per hour. Men were continually having to stop working; they were obliged to rest, it was not a question of slackness. For fear of being called slackers they hesitated to get a doctor's certificate.

125. Though, as stated, the long hours thus undoubtedly placed severe strain upon the workers, the committee did not find that they had caused any serious breakdown among workers. This was in some measure due to the tendency, after a time, to reduce hours. Further, there was good reason for believing that the increased pay and better food which workers were able to enjoy helped to counteract the strain of long hours. There is little doubt, too, that workers were stimulated to make special effort by an appreciation of the national importance of their work. These influences have been thus summarized by a trades-union official:

(1) Will power: Men have continued at work in a condition that under ordinary circumstances would have put them off for a week or two. Even when a man comes off for a time he is anxious to get back again as quickly as possible. I have had one or two cases of serious breakdown. The main factor is that practically all the men want to do their best.

(2) Better wages mean better food for a large number of men with families, and they mean a little better provision for those families, which again reacts upon the man's health and his work. In these cases it is not so much the saving or possibility of saving money, but the satisfactory spending of it, which is the factor of importance.

(3) The possibility of getting more money has also its effect. You read much about the slacker. There is quite a large proportion of workmen really too anxious for overtime—employers will corroborate—even under normal conditions.

126. It would, however, have been a mistake to depend too largely on the operation of influences of these kinds, or to hope that they could continue indefinitely to be effective against fatigue. The committee was satisfied that if workers were to be asked to work for anything approaching 15 hours a day for weeks and months on end, one

of two results must follow—either the health of the worker would break down or they would not work at full pressure.

b. *Recommendations as to the Hours of Labor.*¹

In the preparation of the memorandum on "Hours of work in munition factories" (Memorandum No. 5) the committee seem to have been influenced by consideration of what is immediately practicable regarding the health of the worker in relation to a maximum output, in view of exceptional conditions entailed by the war. It is suggested that an increased number of hours may be obtained by overtime or by a system of shifts and that the committee greatly prefers the latter, although recognizing that it is impracticable to establish shifts universally. The committee's objections to overtime, briefly stated, are: (1) It is liable to impose too severe a strain upon the workers, which adversely affects the rate of production and quality of output during the whole period of work as well as during the hours of overtime; (2) it frequently results in a large amount of lost time, which is attributed to workers becoming exhausted and taking a rest, and also to sickness; (3) it imposes a very serious strain upon the management, the executive staff, and foremen, since they cannot take days off, like the ordinary worker; (4) it is liable to curtail unduly the period of rest and sleep available for those who have to travel long distances to and from their work, a matter of special importance in the case of young persons; (5) the fatigue entailed increases the temptation to men to indulge in the consumption of alcohol.

Admitting that overtime must continue, the committee suggested definite restrictions to govern it. For adult male workers the committee recommends:

1. The average weekly hours (exclusive of meals) should not exceed 65 to 67, including overtime. Hours in excess of 65 should only be worked for short periods and to meet sudden and unexpected circumstances. It may be desirable to differentiate to some extent between different kinds of work, and to fix a rather low limit of hours for work requiring close individual attention.

2. Where practicable, the overtime should be concentrated within three or four days in the week, which should preferably not be consecutive.

3. Where overtime is worked, it is specially important that there should be no Sunday work.

As respects women, the committee expresses the belief that the

¹ Bulletin 221 of the United States Bureau of Labor Statistics.

strain of long hours is serious and that conditions of work in excess of the normal legal limit of 60 hours a week ought to be discontinued as soon as practicable, although little objection is seen to such moderate overtime during the week as can be compensated for by an earlier stop on Saturdays. The committee feels that the need for overtime among women and girls is much less pressing than it is for men, and that wherever practicable the system should be abandoned in favor of shifts. Although it is recommended that boys should be allowed to be employed overtime up to the maximum suggested for men, it is thought that every effort should be made not to work boys under 16 more than 60 hours a week.

Although work on shifts involves night work, the committee makes it clear that night work is not to be regarded as a good thing in itself and offers the following objections to the system:

1. It is uneconomical. Though wages are paid at a higher rate, the rate of output, more particularly during the last two or three hours of the 12-hour shift, is generally lower.
2. Supervision is frequently unsatisfactory.
3. Conditions of lighting are seldom as good as in daytime and make fine work more difficult.
4. Workers experience great difficulty in sleeping by day.
5. The unfamiliar meal hour makes it difficult for the workers to consume substantial food, and their digestion is liable to become deranged.

In its special study of "Output in relation to hours of work" (Memorandum No. 12) the object of the committee was to ascertain the hours of employment most likely to produce a maximum output over periods of months or even years. It held that output cannot be maintained at the highest level for any considerable period if the conditions were such as to lead to excessive fatigue and to deterioration in the health of the workers. The committee's investigations covered operations of distinctly different character, some demanding heavy manual labor, others of a light, more or less sedentary, nature. It was found that the time schedule producing the maximum output varied with the character of the operation.

The committee found that for men engaged in very heavy labor the maximum hours of actual work yielding the most effective results appear to be 56 or less per week, for men engaged in moderately heavy labor probably 60 per week, while for men and youths engaged in light labor, such as tending semi-automatic machines, probably 64 hours per week should be the maximum.

As a method of speeding up production, the committee recom-

mended the careful regulation of rest pauses. It was found that the operatives, if left to themselves, took rests at irregular and often unsuitable times, hence it would be much better if the rest pauses were chosen for them. For instance, a 10-minute break in the middle of the morning and afternoon spells during which the operatives remained at their machines, but took tea or other nutriment brought them by boys or by traveling canteens, has been found a valuable aid to output. Some types of work need longer and more frequent rest pauses than others, and the best time can only be determined by experience. After being fixed they should remain compulsory and rest pauses at other times be checked so far as possible:

The committee's study of "Industrial fatigue and its causes" (Memorandum No. 7) is closely related to its three memoranda dealing with hours of labor. The committee had the benefit of studies of fatigue made by the home office and by a committee of the British Association for the Advancement of Science, and the committee's report may be regarded as the summing up of these various studies of fatigue and its own studies of hours of labor. The committee again emphasize the importance of the regulation of hours and of daily and weekly rests, made with due consideration of the character of the work performed.

The committee in recording their conclusions say:

The committee are bound to record their impression that the munition workers in general have been allowed to reach a state of reduced efficiency and lowered health, which might have been avoided without reduction of output by attention to the details of daily and weekly rests. The signs of fatigue are even more noticeable in the case of managers and foremen, and their practical results are probably more serious than in the case of the workmen.

It is of great importance to note that a special and strenuous voluntary effort in labor, if it be maintained under a badly arranged time-table of work and rest, does not necessarily bring increased output over a long period, however praiseworthy the intention of effort may be. Under wrong conditions of work, with excessive overtime, it is to be expected, indeed, that some deliberate "slacking" of the workers might actually give an improvement of output over a period of some length by sparing wasteful fatigue, just as the "nursing" of a boat crew over a part of a long course may improve their performance. It cannot under such circumstances be said that a workman so restraining himself, consciously or unconsciously, is doing more to damage the output, on the whole, than the employer who has arranged overlong hours of labor on the baseless assumption that long hours mean high output.

2. THE EIGHT-HOUR DAY IN A NATIONAL EMERGENCY.

At the conference held on May 15, 1917, of the committee on labor of the Council of National Defense, with representatives sent by the British and Canadian Governments, one of the important questions discussed was the maintenance of an eight-hour day under the emergency war conditions. (British Labor's War Message to American Labor. Sen. Doc. 84, 65th Con., 1st. Sess.)

The attitude of the British Government was stated by the Right Hon. James H. Thomas, Privy Councilor and Member of Parliament:

MR. A. F. BEMIS: Mr. Chairman, I should like to ask Mr. Thomas a further question on this same point.

Now, what I should like to ask Mr. Thomas is this, whether, notwithstanding the mistake that he said was made in going to the extreme, running 100 hours a week, for instance, in some cases, there may not be a certain amount of increase, say 10 per cent or 20 per cent per week over a temporary period of six months or a year which, in this tremendous strife, we might be justified in?

MR. THOMAS: What you put to me is this, that while long hours have proved disastrous in a long period of two and a half years, an urgent provision for a given thing that would limit the long hours to a shorter period may in the end be temporarily adopted. That is, shortly, your point.

Now, there are two answers to that, it appears to me. The first depends on whether the machinery could be adapted to a continuous shift. For instance, instead of, if you like, increasing the hours to 10 or 12, if arrangements could be made to utilize the machinery on two shifts instead of one without increasing the hours of the individuals, you would there get double or perhaps treble your output; but that must be regulated in accordance with whether or not the machinery itself would stand the strain; whether you could organize your factory to get a continuous running of your machinery, or whether you could not.

* * * * *

DR. ALBERT SHAW: Mr. Chairman, may I ask Mr. Thomas a question?

THE CHAIRMAN: Certainly.

DR. SHAW: Mr. Thomas, may I ask a question somewhat closely associated with two or three that you have already answered? I have in mind certain manufacturers. Our government has already approached them and asked them to take munition contracts. Those contracts would not occupy the whole of their manufacturing facilities, would occupy, let us say, 20 per cent of their manufacturing facilities. These businesses are now on a 10-hour basis. The contracts that the government would have them take would have to be taken, let us say, on an 8-hour basis, with time and a half for overtime.

Now, those men would like to do the Government business; they would like to take those contracts; they want to be patriotic; but if they took those contracts on the 8-hour basis—pardon me for speaking so long, but I will state my case clearly in a few words—if they took those contracts, which they would have to take on the 8-hour basis, they would be compelled to make over their entire factories upon an 8-hour basis, because their other men working on other things would probably demand the 8-hour day. These men are so situated at the present time that they can not make over their factories, in their own estimation, on the 8-hour day basis, without very, very serious disaster.

The problem is not hypothetical. It is a very practical problem. It is a problem which at this very moment we are compelled to face in this country. What is the answer to a problem like that in the process of transition—because, of course, it is a transitional problem?

MR. THOMAS: * * *

There are two ways, I think, of meeting it. The first would be a universal 8-hour day for all, and that would put them all on an equal footing. [Applause.] But I am not going to skip it by, assuming that that is the only solution. That, I submit, would be the equal solution, would be the fair and equitable solution. I believe, in the end, because our experience with the 8-hour day is this, that all employers that have adopted eight hours in our country have never gone back to a 9-hour day, and the general experience is that the eight hours has proved beneficial to the employers as well as the employees.

But we are dealing with war, and the emergency it creates, and the general economic situation does not arise. Now, I believe, and I am satisfied from what has happened here today and what has happened during the fortnight that we have been with you, that there is a genuine desire on the part of organized labor to meet any and every difficulty. That is one of the difficulties that is recognized, probably, as the most urgent on both sides; and I would say that the best and the surest sign of the coming to an agreement is for you to do as I said just now in answer to another question: Let the manufacturer or the contractor who is faced with that problem immediately get in touch with the representatives of the men in that industry, come together, face the fact that here is the difficulty, here are the facts of the situation, here is the nation's emergency, and I am satisfied that with give and take on both sides a bridge will be found for that. I have an idea our bridge could be found, but I am not dictating or lecturing the American people. I am giving them the benefit of our experience; and I am quite confident that with a desire to find a solution on both sides, you will find one. But I would beg of you not to be edging around the question, not to be assuming that the contracts can not be done, but let any contractor faced with that difficulty frankly send to the trades-union representatives and say, "Let us meet in conference to discuss this question with all the cards on the table." Let the

employer say, "I am not desirous of taking advantage of the war to break down something that I never believed in." On the other hand, let the employees say, "Whilst anxious to maintain the law, we are not anxious to take advantage of the war to enforce something during the war that we could not obtain in peace times." With both sides recognizing that, I repeat, I believe they will find a solution.

3. ACTION OF THE INTERNATIONAL LABOR CONFERENCE ON THE EIGHT-HOUR DAY.

At the International Labor Conference in Washington, October 29-November 29, 1919—the first world labor conference—the eight-hour day was foremost among the subjects discussed, after being presented to the conference by the Hon. G. N. Barnes, Government Representative for Great Britain.

The following account of the discussion appeared in the *Monthly Labor Review* of the United States Bureau of Labor Statistics (Jan., 1920, pp. 8-9.)

In the lengthy general discussion of the motion which followed, the usual arguments for and against the application of the principle of the eight-hour day were made and several amendments offered. Those opposed to the application of this principle emphasized the fact that increased production is the greatest present necessity. War debts must be paid and foreign competition and immediate economic needs met. Shorter hours would mean less production, and the French employers' delegate said that the introduction of the eight-hour day in France had resulted in a 15 to 20 per cent reduction in production. If production should be cut down, the workers would be the first to suffer. It was further asserted that this limitation of working hours would not be practicable in seasonal industries such as agriculture and lumbering, in continuous industries and others; that it would be the deathblow of small industries and would prevent starting new ones, and that in countries like Canada and the United States, where the labor question is a separate one in each Province and State, difficulties of agreement would result from the different interests of the different national political divisions.

In reply to these arguments it was maintained that the question of increase in production was not overlooked in the limitation of the length of the working time. Experience gained in the war and scientific investigation had demonstrated the fact that the longer the hours of work the less the production. As regards the application of shorter working hours in the continuous industries, the difficulty of granting a weekly day of rest could be met by an increase of shifts, and these could be easily manned for the reason that in the electrical industries only a small number of workers are required for the necessary fourth shift, and in the chemical and steel industries the labor required is largely unskilled labor which is readily obtained. A delegate from Czecho-Slovakia pointed out that the National Polish Assembly wished the same law applied to agriculture

as governed in other industries, because the attraction of town life and shorter hours induced the laborers to leave the farms. A law of this character, he said, had been in force in Poland, a newly created State whose economic questions were hard to solve, for nearly a year and no serious objections to it had been made. The eight-hour day in some form is, moreover, an accomplished fact in many countries. To question its adoption, remarked the Government delegate from Netherlands, would be like trying to rediscover America. The social and ethical importance of the 8-hour day and the 48-hour week was especially emphasized. The worker must not only "be protected against undue fatigue, but also must be insured reasonable leisure and opportunities for recreation and social life."

The motion, with all the amendments and suggested changes, was finally referred to a committee composed of 15 delegates, 5 from each section, for consideration. The final report upon the subject apart from its application in tropical countries was made by Mr.

Arthur Fontaine, Director of the Labor Department of the French Ministry of Labor, in the form of a draft convention.

In general, the convention provides an 8-hour day and a 48-hour week applicable in "all industrial undertakings public or private, and to all branches thereof of whatsoever kind, other than undertakings in which only members of the family are employed."

A recognition of the impossibility of a rigid application of this principle, however, resulted in the adoption of a number of important and far-reaching exceptions:

"The provisions of the convention shall not apply to persons holding positions of supervision or management, or employed in a confidential capacity.

"Where by law, custom, or agreement between employers' and workers' organizations (or where no such organizations exist, between the employers' and workers' representatives) the hours of work on one or more days of the week are less than eight, the limit of eight hours may be exceeded on the remaining days of the week by the sanction of the competent authority, or by agreement between such organizations or representatives: *Provided, however,* That in no case under the provisions of this paragraph shall the daily limit of eight hours be exceeded by more than one hour.

"Where persons are employed in shifts it shall be permissible to employ persons in excess of 8 hours in any one day and 48 hours in any one week, if the average number of hours over a period of three weeks or less does not exceed 8 hours per day, and 48 per week."

The draft convention on the eight-hour day was finally adopted by a substantial majority.

4. ATTITUDE OF AUSTRALIAN COURT OF ARBITRATION.

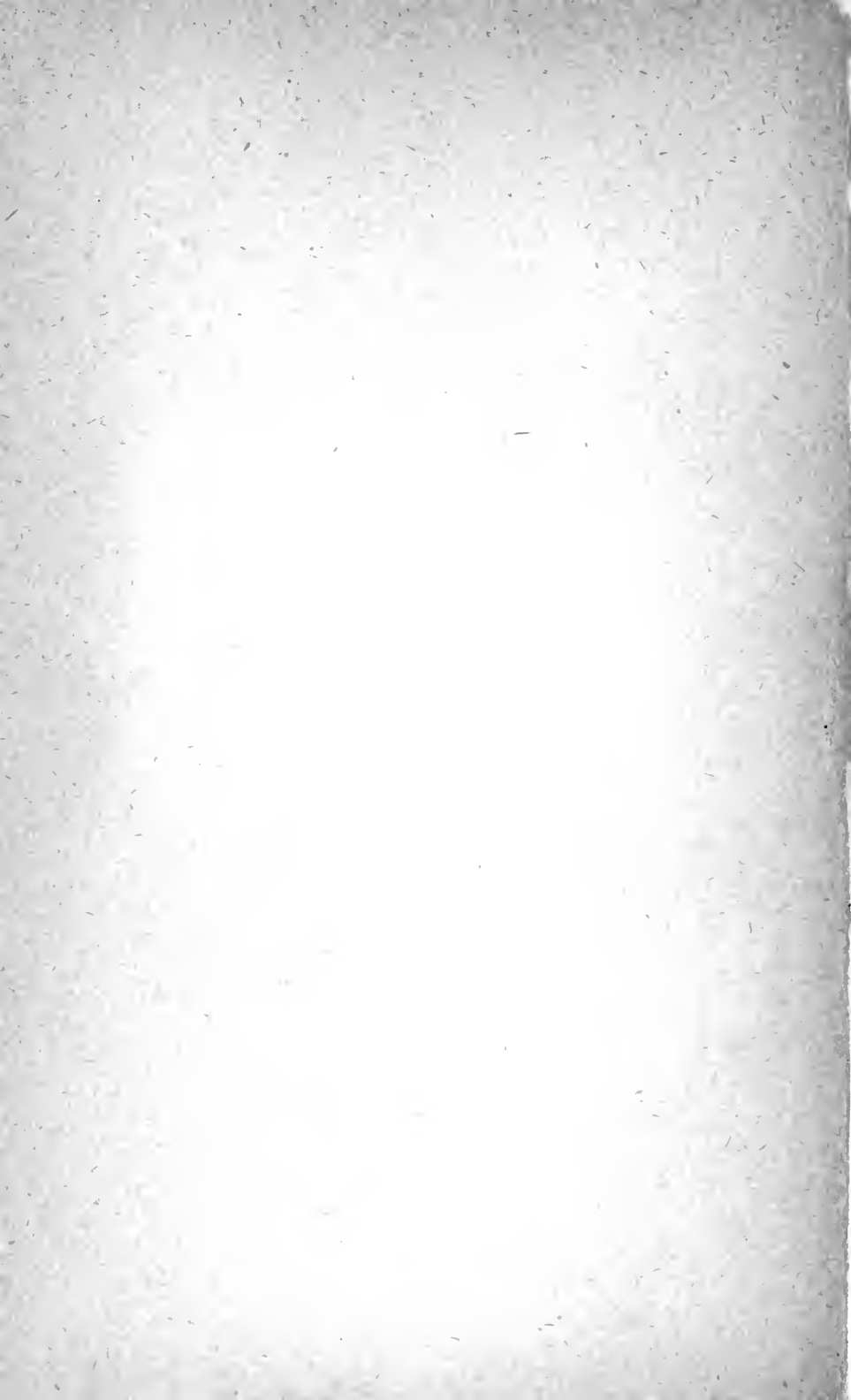
In commenting upon the claim of the Federated Mining Employees' Association of Australia for a 44-hour week and a maximum of 8 hours per day, Deputy President J. Powers of the Australian Court of Conciliation and Arbitration said:¹

"The President of this Court has in every case up to the present, when the custom in an industry is to work for 48 hours, declined to reduce hours unless for exceptional reasons, leaving it for Parliament to reduce the hours to be worked generally if it sees fit, or specially in particular industries. Legislation has been passed in all the States limiting the hours of miners to eight hours a day on six days a week.

"I have followed the practice laid down by the President, and although, personally, I would like to see the hours underground reduced to 44, it is a custom in mining centers generally throughout the world to fix 48 hours as a week's work."

¹ Commonwealth (Australia) Arbitration Reports, 1915, Vol. 9, p. 36.





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